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THE AGRICULTURAL HISTORY SOCIETY

ANNUAL AWARD
for the best book manuscript
dealing with a subject in agricultural history

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The Agricultural History Society, in cooperation with the University of Illinois Press, has established an annual award for the best book manuscript dealing with a subject in agricultural history. Manuscripts received on or before January 1, 1958, will be considered for the 1958 award. Send entries to

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The winning manuscript will be published by the University of Illinois Press in 1958. The winning author will receive a standard royalty contract.

Further details must await the final report of the committee on rules for the selection of manuscripts. This report will appear in the January 1958 issue of **Agricultural History**.

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AGRICULTURAL HISTORY

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Agricultural History is designed as a medium for the publication of research and documents pertaining to the history of agriculture in all its phases and as a clearing house for information of interest and value to workers in the field. Materials on the history of agriculture in all countries are included, and also materials on institutions, organizations, and sciences which have been factors in agricultural development. The Society is not responsible for the statements or opinions of contributors. Editorial communications should be addressed to D. A. Brown, Editor, Agricultural Library, 226 Mumford Hall, University of Illinois, Urbana, Illinois. Books for review should be sent to C. Clyde Jones, Associate Editor, Room 112, David Kinley Hall, University of Illinois, Urbana, Illinois.

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The Agricultural Press

The first three papers following, by George F. Lemmer, John T. Schlebecker and Homer E. Socolofsky, were presented before a joint session of the Mississippi Valley Historical Association and the Agricultural History Society at Lincoln, Nebraska, May 3, 1957. The fourth, by Weymouth Jordan, was read at the December 30, 1956, meeting of the Society in St. Louis.

Early Agricultural Editors and Their Farm Philosophies

GEORGE F. LEMMER

Until well after the Civil War, the editors of farm journals spearheaded the drive to improve agriculture in the United States and raise its professional standing. John Stuart Skinner, Jesse Buel, Luther Tucker, Edmund Ruffin, Daniel Lee, Martin W. Philips, Dennis Redmond, M. B. Bateham, Tolbert Fanning, John S. Wright, and Norman J. Colman gained their public reputations chiefly as propagandists for a better system of farming. They believed that in a country still largely dependent upon agriculture for its well-being, only disaster could result from a failure to use agricultural resources intelligently. Exhausted and abandoned fields, poorly-fed, scrub livestock, and dilapidated farm buildings bore ample testimony that farmers in most sections of the country needed to change their agricultural practices. Although it is risky to generalize about men with such varied backgrounds and personalities, it is safe to state that the farm editors of the ante-bellum period looked upon themselves as leaders in a highly significant reform movement. They agitated for changes in agriculture which they believed were essential to the continuing economic growth of the United States. And they were convinced that prosperity and a better life could be achieved by every farmer who would bestir himself to learn superior farm methods and put them into practice.

Although generally optimistic, the editors had no illusions that the task of reforming agriculture would be easy. Farmers were apathetic and slow to change, and most of them possessed an ingrained distrust of "book farming". The vast majority stub-

bornly refused to subscribe for an agricultural paper and read it. Both Skinner and Tucker were warned by their friends that it would be the height of folly to publish papers devoted exclusively to agriculture. As late as 1850, Tucker estimated that not one farmer in 2,000 subscribed for an agricultural paper. Nevertheless, some farmers did read the journals and displayed an interest in reforming their methods. When Tucker purchased *The (Albany) Cultivator* in 1839, he reported that its circulation had reached 15,000 and that his own *Genesee Farmer* had 18,000 subscribers.¹

John Stuart Skinner, postmaster of Baltimore, Maryland, established a pattern followed by many later editors when he founded the *American Farmer* on April 2, 1819. His prospectus announced that the journal would attempt to collect and publish information from every available source on every branch of husbandry. Subscribers would thus be able to study many systems of farming and adopt those which experience had demonstrated were the best. Skinner hoped to put farmers in possession of that knowledge without which the best land is only dead capital.

Skinner is usually credited with being the founder of agricultural journalism in the United States. Since the *American*

¹ Albert Lowther Demaree, *The American Agricultural Press, 1819-1860* (New York, 1941), 1-20, 116; George F. Lemmer, *Norman J. Colman and Colman's Rural Worlds: A Study in Agricultural Leadership* (Columbia, Mo., 1953), 16-18; *The American Farmer*, 1:1-5 (April 2, 1819); *Genesee Farmer*, 1:1-5 (January 1, 1831); 2:1-3 (January 7, 1832); 9:353 (November 9, 1839); *The Cultivator*, n. s. 7: 152 (April, 1850).

Farmer was the first farm periodical to achieve prominence he probably deserves the reputation, although the first journal devoted exclusively to farm topics, *The Agricultural Museum*, appeared in Georgetown, D. C., July 4, 1810. This little paper, devoted mainly to sheep raising, was edited and published by David Wiley, secretary of the Columbian Agricultural Society. The society sponsored and supported the journal, but it ceased publication after May, 1812.²

The *American Farmer* naturally reflected the conditions of agriculture on the Eastern Seaboard and concerned itself chiefly with problems of the farmers in this area. Skinner hoped, however, to make it a national journal. He labored to serve and to represent the farmers of the North, South, East and West, and he probably succeeded as well as anybody could have under conditions prevailing in his day. Within two years of the publication of the first number of his paper, Skinner claimed that he had gained the confidence and support of many good citizens in all of the states of the Union and of all political parties. Like most of his successors, he was determined to avoid partisan discussions and to appeal to men of all parties. By 1826, he had correspondents from most of the eastern states and from as far west as Missouri.

As early as 1821, Skinner expressed fear that the publication of too many farm journals would make it difficult for any of them to obtain enough subscribers to maintain themselves. He believed that an agricultural journal ought to operate on a big enough scale to enable its editorial staff to conduct an experimental farm. In this way, the editor could accumulate authentic information on which to base his advice to farmers. Skinner could never carry out this bold ambition, but he did plant and experiment with an extensive nursery on his farm outside Baltimore, raise imported cattle, collect a fine library on agricultural subjects, and correspond with successful farmers all over the country. In addition, he collected seeds of many varieties of grains and other plants, and offered them

to his subscribers at no cost provided they would experiment with them and report the results. Since Skinner had served as a purser during the War of 1812, he knew many ship captains of the United States Navy. At his request, they often brought him seeds from foreign countries when they called at the port of Baltimore. He distributed and used these as he saw fit, and on one occasion he sent samples of wheat, rye, and barley from the Near East to agricultural societies in Delaware, Maryland, Virginia, South Carolina, and Kentucky.³

Although he gave ample space to most aspects of agricultural reform, Skinner devoted the major share of his attention to soil conservation. Calling attention repeatedly to the awful waste of fertility evident throughout the South Atlantic states, he pleaded for a new system of land management employing horizontal plowing to prevent erosion, rotation of crops, the planting of legumes, and the use of lime and fertilizers. Only by replacing the heavy reliance on tobacco and grain with a more balanced system, which included the raising of more and better livestock, he asserted, could the land be reclaimed and the farmers become more prosperous. He regularly filled the pages of his journal with articles describing practices which could reverse the trend toward soil depletion and reclaim exhausted fields.

While Skinner wrote many of the articles himself, he also published many by other agricultural leaders who, like himself, were wrestling with the problem of exhausted land and poor land management. John Taylor of Caroline, author of *Arator*, wrote several series of essays describing his experience with red clover and other grasses. Taylor and Skinner blamed the rapid emi-

² *American Farmer*, 1:1-5 (April 2, 1819); Stephen Conrad Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910* (Washington, 1941), 2; Herbert A. Kellar, "John Stuart Skinner," *Dictionary of American Biography* (New York, 1953), 17:199-201.

³ *American Farmer*, 1:55 (May 14, 1819); 1:415 March 24, 1820); 3:7-8 (March 30, 1821); 8:244 (October 20, 1826).

gration of farmers from Virginia and other South Atlantic states on soil exhaustion, and they agreed that the utilization of grasses and manure in regular systems of rotation afforded the only remedy. Taylor declared that, within a period of 10 years, he quadrupled his corn yield by using clover and other grasses in regular rotation with grain, deep plowing, manure, and plaster of Paris or lime. Skinner also described the experiences of Thomas Jefferson and his son-in-law, Thomas Randolph, who, according to Jefferson, introduced horizontal plowing of undulating land. Jefferson believed that this system, which had rapidly spread through Virginia and done much to reduce erosion, plus a liberal use of clover and plaster, would restore the land of Albemarle County to its original fertility.

A landmark in agricultural journalism occurred on December 28, 1821, when Skinner devoted almost his whole issue to Edmund Ruffin's original essay "On the Composition of Soils and Their Improvement by Calcareous Manures." Ruffin had read this paper before the agricultural society of Prince George County, Virginia, which had ordered it to be printed in the *American Farmer*. Skinner thought so highly of the essay that he doubled the number of copies of his journal and distributed the extra copies without charge. He recognized Ruffin's contribution as probably the most important study of soil rehabilitation that had ever been made and praised it above anything he had ever published, particularly because it proved that practical farmers with intelligent effort could rebuild their exhausted farms. Ruffin's famous essay, which appeared as a book in 1831 and went through several editions, attracted the attention of agricultural editors all over the country. Luther Tucker gave Ruffin's work publicity in the North by reviewing it favorably in his *Genesee Farmer* of Rochester, New York. Tucker believed that Ruffin's book, *An Essay on Calcareous Manures*, was about the most important agricultural study ever published in the United States, and that Ruffin had ". . . led the way in a course of improvement that will materially improve the

conditions of that country [the Tidewater districts]."⁴

In conjunction with his general agitation for improvements in farming, Skinner participated actively in the work of agricultural societies and in the introduction of better breeds of livestock. The most active leader of the Maryland Agricultural Society during the 1820's, he persuaded that organization to hold semi-annual fairs for the exhibition and sale of purebred livestock and improved farm implements. Some of these exhibitions occurred on Skinner's estate during the 1820's, he persuaded that 200-acre farm four miles outside Baltimore. In 1821 Skinner began to stock his farm with the best specimens of purebred cattle, hogs, sheep, horses and asses, many of them imported from Europe. In May, 1822, the Maryland Agricultural Society gave him a special award for his work in importing purebred shorthorns. In this activity Skinner received advice and assistance from Sir John Sinclair, the famous British agricultural reformer of Edinburgh, Scotland, with whom he frequently corresponded.⁵

Skinner's fondness for outdoor sports and fine horses led him to begin publication, in September, 1829, of the *American Turf Register and Sporting Magazine*. He established the journal to fill the need in this country for a journal similar to the English *Sporting Magazine*—to record the performance and pedigrees of purebred horses and to provide general information on rural sports. This journal, published until 1844, also included material on veterinary subjects and natural history.⁶

Like most agricultural reformers, Skin-

⁴ *Ibid.*, 1:257-264 (November 12, 1819); 1:357 (February 4, 1820); 2:348-349 (January 26, 1821); 3:313-319 (December 28, 1821); 3:374-376 (February 15, 1822); 6:5 (March 26, 1824); 8:58 (May 12, 1826); 8:377 (February 16, 1827); *Genesee Farmer*, 4:385-386 (December 6, 1834).

⁵ *American Farmer*, 2:79 (June 2, 1820); 2:404, 408 (March 2, 1821); 4:114 (July 5, 1822); 9:404 (March 7, 1828).

⁶ *Ibid.*, 6:270-272 (November 12, 1824); 11:190-191 (August 28, 1829); 11:30-31 (October 2, 1829); Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910*, 15.

ner was an ardent nationalist and a strong supporter of internal improvements by both state and national governments. Despite the objection of some of his subscribers, he devoted considerable space to this subject because he believed better means of transportation were just as important to farmers as increased production. He regretted the tendency of some farmers to object to improvements merely because their sections of the country would not be benefited immediately. He believed that " . . . we are emphatically one people . . ." Although generally a protectionist, he opposed any tariff which would put a burden on farmers in order to protect special groups.⁷

In August, 1830, Skinner sold the *American Farmer* to I. Irvine Hitecock & Co. of Baltimore, where it continued under the editorship of Gideon B. Smith, an active agitator for the introduction of silk culture into the United States. This did not end Skinner's career as an agricultural reformer, however. For 20 more years he continued active in the work, editing his *American Turf Register and Sporting Magazine*, the *Farmer's Library and Monthly Journal of*

Agriculture, and from 1848 to his death, the *Plough, the Loom and the Anvil*, of Philadelphia. He edited several books on agriculture, including Henry S. Randall's *Sheep Husbandry at the South*, in 1848. He died of a fractured skull on March 21, 1851, after a fall in the post office at Baltimore. At the time of his death he was generally recognized as the father of the agricultural press in the United States.⁸

During the 20 years following the establishment of Skinner's journal at Baltimore, 15 or 20 agricultural periodicals sprang up along the Eastern Seaboard, in the Old Northwest, and in Kentucky and Tennessee. Few of these continued publication long enough to become influential, but a number of them were edited and published by the ablest and most prominent agricultural reformers of the pre-Civil War period. This rapid increase in the number of farm journals after 1825 resulted primarily from a belief that no one paper could serve adequately the various regions of the country with their diverse soils, climates, and systems of agriculture. There may also have been an element of imitation, prompted by Skinner's success. Underlying the whole movement was the zeal of the reformers, with their faith that the wide dissemination of knowledge would transform agricultural practices.

Thomas Green Fessenden,⁹ who founded the *New England Farmer* at Boston in August, 1822, voiced the need for a regional journal in his first number. The many agricultural improvements of recent years would be of great practical benefit to the farmers and to the country as a whole, and it was his purpose to spread knowledge of these methods to the farmers of New

GENESEE FARMER

AND

Gardener's Journal.

A WEEKLY PAPER, DEVOTED TO

Agriculture, Horticulture & Rural Economy

N. GOODSELL, EDITOR.

VOLUME I.

ROCHESTER:

PUBLISHED BY LUTHER TUCKER & CO.

1851.

⁷ *American Farmer*, 5:123 (July 11, 1823); 5:281-283 (November 28, 1823); 5:304 (December 12, 1823).

⁸ *Ibid.*, 12:198-199 (September 3, 1830); *Ohio Cultivator*, 7:104 (April 1, 1851); *Prairie Farmer*, 11:221 (May, 1851); Kellar, "John Stuart Skinner."

⁹ Earlier in his career, Fessenden had been a noted satirist and a member of that group of New England writers known as the Hartford Wits.



England. He acknowledged that two other journals were being published, but he thought that they would not suit the farmers of New England, because of its different soil and climate. Like most of his contemporary editors, Fessenden affirmed that only a small amount of his space would be allotted to advertising and that partisan polities and "polemical divinity" would be absolutely excluded from columns of the *New England Farmer*.¹⁰

Fessenden's attempt to keep his paper strictly utilitarian brought criticism from certain readers, and he experienced difficulty in getting his ideas accepted by the people who could benefit the most from them. Some subscribers complained that his journal was dull—that his readers were ". . . tired to death of endless essays on breeds and diseases of cattle, making manure, digging ditches, planting potatoes, etc." They also claimed his articles were too long. Fessenden replied that his journal would impart information, not entertain. He denied publishing many theoretical articles which farmers couldn't understand, but he asserted that in trying to make science the "hand-maid of useful arts" he couldn't make the subject matter light or entertaining. Articles also had to be long enough to explain the new methods clearly and give complete information.¹¹

The *New England Farmer*, which soon gained a fairly wide circulation in the Northeast and Canada, crusaded for the improvement of livestock and the growing of fruits and vegetables. Fessenden in-

sisted that farmers could raise animals of high quality just as easily as the "lank, raw-boned, slab-sided creatures" which graced most farmyards and were as unprofitable as they were ugly. He called attention to the growing interest in the improved Shorthorns or Durhams being imported into the area around Boston by Stephen Williams and other members of the Massachusetts Agricultural Society.

In 1825, Fessenden published a long series of articles by Thomas Pickering of Salem, Massachusetts, and John H. Powell of Philadelphia, arguing the comparative merits of "native" and imported cattle. These articles, which also appeared in the *American Farmer*, presented a thorough and lively discussion of prevailing views on cattle breeding in the United States. Pickering argued that American farmers could derive much more benefit from the selective breeding of the cattle they had, the so-called natives, than by spending large sums on the importation of purebred stock from England. Powell insisted that all of the good cattle in the United States had resulted from crosses with the purebred English cattle and that Americans could not afford the long, slow process of selection and breeding which would be necessary to obtain good stock from the common American strains. He saw no reason why Americans should not take advantage of the work already done by the British, and he cited much evidence to show that Shorthorns and their crosses

¹⁰ *New England Farmer* 1:1 (August 3, 1822).

¹¹ *Ibid.*, 2:14-15 (August 9, 1823).



Solon Robinson

were by far the best cattle in the country. Despite the high cost and the frequent wild speculations in imported cattle which worried Pickering, most cattlemen supported Powell's side of the argument. Many stock raisers discovered, however, that the purebreds required better care and feeding than the average farmer could or would give them.¹²

Fessenden's interest in horticulture and vegetable gardening became evident early. During most of the period when he published the journal, it carried the title *New England Farmer and Horticultural Journal* or *New England Farmer and Gardeners' Journal* and always included a great deal of information on fruits and vegetables. Fessenden usually published a regular column on fruit raising, admonishing New Englanders to raise more fruit, and by the late 1820's he had aroused much interest in the subject. Practically all of the agricultural editors of the pre-Civil War period recognized the importance of fruit and vegetables in a wholesome diet and observed that most farm people neglected them.¹³

After Fessenden died on November 10,

1837, the *New England Farmer* was edited during its remaining years by Henry Colman, Allen Putnam, and Joseph Breck. Colman, a Unitarian minister and Commissioner of Agriculture of Massachusetts, became prominent after his agricultural survey of Massachusetts, parts of which were published in many of the agricultural periodicals of the North. He served as editor until the end of 1840, when his work on the agricultural survey compelled him to turn over most of his editorial duties to Putnam, another Unitarian minister. In 1843 Breck, a Boston merchant and sole proprietor of the paper after Fessenden's death, had to assume the editorial burden also. Although he devoted the larger part of his time to his agricultural warehouse and seed store, he kept the paper going until June, 1846. At that time he announced that the *New England Farmer* no longer brought in enough money to pay expenses, and he transferred his subscription list to the *Horticulturist*, which Luther Tucker and A. J. Downing were starting at Albany, New York.¹⁴

In many respects, Luther Tucker achieved the greatest success of all the agricultural editors and publishers who started farm journals before the Civil War. Born in 1802 at Brandon, Vermont, Tucker began his journalistic career at 14 as an apprentice and journeyman printer in Vermont and New York. In 1826, he settled at Rochester, New York, and began publishing the *Rochester Daily Advertiser*. His strong interest in agriculture led him to establish the *Genesee Farmer* on January 1, 1831, and a few years later, to purchase a farm. Tucker's prominence arose from his suc-

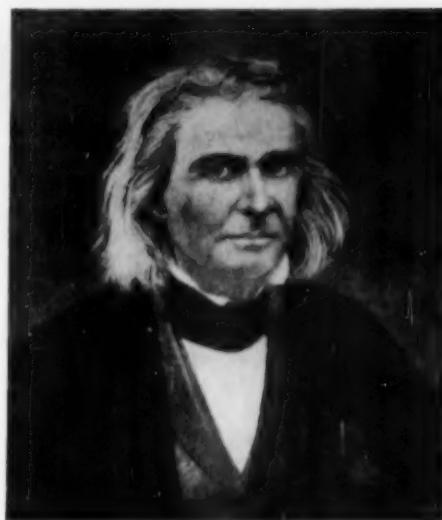
¹² *Ibid.*, 3:297-402, *passim* (April 15 - July 15, 1825); 4:1-3 (July 29, 1825); *American Farmer*, 7:193 (September 8, 1825).

¹³ *New England Farmer*, 5:303 - 416, *passim* (July 6 - July 20, 1827); 6:1-18 (July 27 - August 10, 1827); 7:414 (July 17, 1829); 13:833 (February 4, 1835); *Genesee Farmer*, 3:289 (September 14, 1833); 9:90 (March 23, 1839).

¹⁴ *New England Farmer*, 16:1-2, 9-10 (July 12-19, 1837); 16:150 (November 15, 1837); 17:201-202 (January 3, 1838); 19:198 (December 23, 1840); 22:102 (September 27, 1843); 24:406-414 (June 17-24, 1846).

cessful publication of a number of farm papers—the *Genesee Farmer*, the *Cultivator*, the *Horticulturist*, and the *Country Gentleman*—and from the fact that he employed many of the ablest agricultural writers of the country to work on his journals. From 1840 to 1852, Tucker also served as secretary and treasurer of the New York State Agricultural Society and has often been credited with chief responsibility for making it a strong and active organization.¹⁵

Assisted by such able agricultural writers as David and John J. Thomas, of Cayuga County, and Willis Gaylord, of Onondaga County, Tucker soon made a success of the *Genesee Farmer*. John J. Thomas, who helped edit Tucker's papers until shortly before his death in 1895, was a successful farmer, especially interested in fruit raising. For over 30 years he remained one of the best known agricultural editors of the country. In 1849, he published an important book on horticulture entitled *The American Fruit Culturist*. Gaylord's health did not permit him to engage actively in farming, but he became a thorough student of agriculture and wrote extensively on the subject until his death in 1844. Beginning in 1836 the *Genesee Farmer*, and later the *Cultivator*, published his dictionary of agricultural terms, which Gaylord hoped would clear up the great confusion of terminology so common in agricultural writing and discussion. Gaylord had great confidence in the power of farm periodicals to bring about improvements in agriculture. Before 1840, he professed to see the beginning of a better system of farming in New York, much of which he attributed to the wider diffusion of knowledge by agricultural journals and societies. Farmers had begun to rotate crops, plant clover, use their manure properly, and supplement it with plaster of Paris and other forms of lime. Tucker and Gaylord insisted, nevertheless, that only a beginning had been made. To be successful, farmers would have to increase their efforts and greatly improve their breeds of livestock and provide them



Edmund Ruffin

with better food and shelter. In 1840 they published a collection of their essays in a book, called *American Husbandry; being a Series of Essays on Agriculture*.¹⁶

Tucker and his associates were anxious to educate the farmers in every sense of the word. The paper supported the public schools and denounced the practice of hiring unqualified teachers, warned the farmers against needless destruction of the forests, denounced as superstition the farmers' planting of crops according to the phases of the moon, and derided the belief that wheat would turn to cheat (or chess) under unfavorable growing conditions. Both of these superstitions were extremely tenacious, and battles for and against them were waged in the farm papers year after

¹⁵ See Tucker's Obituary in *Country Gentleman*, 38:72-73, 88-89 (January 30 and February 6, 1873); *Genesee Farmer*, 1:1 (January 1, 1831); Claribel R. Barnett, "Luther Tucker," *Dictionary of American Biography*, 19:35-36.

¹⁶ *Genesee Farmer*, 2:1-3 (January 7, 1832); 4:409-411 (December 27, 1834); 6:29 (January 23, 1836) 7:241 (August 5, 1837); 8:1 (January 6, 1838); 9:1-2 (January 5, 1839); Claribel R. Barnett, "Willis Gaylord," *Dictionary of American Biography*, 7:199-200; Wm. A. Taylor, "John Jacob Thomas," *Dictionary of American Biography*, 18:439-440.

year. Tucker considered the "moon" farmers and those who believed that wheat could become cheat, victims of superstition, and he doubted whether they could make much progress toward scientific agriculture so long as they clung to such foolish notions.

Most articles in the *Genesee Farmer* were of a more practical nature than these, being devoted to the everyday application of modern farming methods. Within two or three years, Tucker had demonstrated his unique ability to attract a wide following and persuade subscribers to write for the paper. By 1840 he could boast that in one year, he had received articles from about 300 correspondents, almost all of whom were practical farmers.¹⁷

The death of Judge Jesse Buel on October 6, 1839, ended the career of one notable agricultural editor and publisher and resulted in a significant expansion of Tucker's activities. Before his death, Buel had become one of the leading authorities on improved agriculture in the United States. A Whig politician and judge of Albany, New York, he became keenly interested in middle life in placing agriculture on a more scientific basis. About 1820 he purchased 80 acres of poor, sandy, unimproved land a few miles outside Albany and for many years devoted most of his time to farming and improving it. By rotating crops, applying manure and lime, draining the wet portions, and planting an orchard he made his farm a show place and also a profitable venture.

Buel also wrote widely on agricultural subjects, publishing articles in local newspapers, the *American Farmer*, the *Genesee Farmer*, and in 1839 authoring a popular book, *The Farmers' Companion*. The latter was written at the request of the Massachusetts Board of Education for use in school and rural libraries and went through six editions. Buel also became a leader in the New York State Agricultural Society, and when that body, probably at his suggestion, established an agricultural periodical at Albany in 1834, he was the obvious choice as editor. This journal, the famous Albany *Cultivator*, was published regularly for over

30 years. At first owned by the state agricultural society and sold at \$.25 a year in order to reach a wide public, the journal soon became a complete Buel enterprise.¹⁸

Soon after Buel's death, Tucker merged his *Genesee Farmer* with the *Cultivator*. He moved to Albany, where he published the journal until 1865, when it was consolidated with the *Country Gentleman*.¹⁹ In 1846, Tucker founded the *Horticulturist*, which under the editorship of his friend, Andrew Jackson Downing, became the most notable periodical of its time on the subject of fruit raising. Downing, born at Newburgh, New York, in 1815, was an outstanding horticulturist and probably the first important American landscape gardener. His *Treatise on the Theory and Practice of Landscape Gardening, Adapted to North America* (1841), and *Fruit and Fruit Trees in America* (1845), attracted wide attention both in the United States and Europe. The former work went through many editions, the last published in 1921. Downing's older brother, Charles (1802-1885), who also wrote for Tucker's papers, never became as well known as Andrew, but he established a sound reputation as a horticulturist, also. He experimented with fruit and wrote on the subject from about 1840 until his death.

A. J. Downing's brilliant career came to a tragic end at the early age of 37, when he was killed in a steamboat accident on the Hudson in July, 1852. Tucker then sold the *Horticulturist* and concentrated most of

¹⁷ *Genesee Farmer*, 1:265 (August 27, 1831); 2:378 (December 1, 1832); 3:17-24 (January 19, 1833); 3:193 (June 22, 1833); 3:238-239 (July 27, 1833); 4:309-310 (September 27, 1834); *Cultivator*, 7:181 (December, 1840).

¹⁸ *American Farmer*, 7:321-324 (December 30, 1825); *Genesee Farmer*, 3:105 (April 6, 1833); 9:321-353 (October 12 and November 9, 1839); *Cultivator*, 1:1-3 (March, 1834); Nelson A. Crawford, "Jesse Buel," *Dictionary of American Biography*, 2:238-239; Harry J. Carman, "Jesse Buel, Early Nineteenth Century Agricultural Reformer," *Agricultural History*, 17:1-13 (January, 1943).

¹⁹ *Genesee Farmer*, 9:353 (November 9, 1839); *Cultivator* 6:177 (November 20, 1839); *Cultivator and Country Gentleman*, 38:72-73, 88-89 (January 20 and February 6, 1873).



his energies on a new publication, *The Country Gentleman*. This weekly journal, which continued for more than a century, first appeared in 1853. For subscribers who did not want to pay the \$2.00 a year for a weekly publication, Tucker continued *The Cultivator* through 1865, at \$.50 a year. It was published once a month and was largely made up of leading articles from the *Country Gentleman*. Downing, who in 1851 had been engaged to lay out the grounds for the White House, the United States Capitol, and the Smithsonian Institution, would probably have joined the editorial staff of the *Country Gentleman* had it not been for his untimely death.²⁰

Another of the important journalists who wrote for Tucker's papers was Solon Robinson, pioneer and scientific farmer of Indiana. Robinson first began writing for farm journals about 1837. In 1841 he joined James M. Garnett of Virginia, Henry L. Ellsworth of the United States Patent Office, and other agricultural leaders in advocating a national agricultural society and school at Washington, D. C. His trip to and from Washington in 1841 stimulated him to begin a series of agricultural tours and to write essays based on them for the *Cultivator*, the *American Agriculturist*, the *Prairie Farmer*, the *Southern Cultivator*, and other periodicals. In 1852 he moved to New York, where he published the *Plow* for a short time, and the next year became agricultural editor of the *New York Tribune*. For several years he ran an experimental farm at Westchester, New York.²¹

Tucker died on January 26, 1873, and

the *Country Gentleman* continued under the direction of his two sons, Luther H. and Gilbert M. Tucker, the former of whom had been an assistant editor since 1855. For many years Tucker exerted an important influence on agricultural matters of the United States and was looked upon by his contemporaries as the leader and model of the agricultural journalists of the country. He probably did more than any American of his time to promote agricultural journalism and a wide dissemination of knowledge about scientific farming.²²

When Tucker left Rochester at the end of 1839, a group of men who had at times been associated with the *Genesee Farmer* decided to continue its publication at the old location. Although Tucker accused them of deceiving him and trying to steal the large subscription list he had built up over the past nine years, the new journal under an old name proved successful. Many farmers in western New York apparently accepted the argument that they could be served better by a local journal, and refused Tucker's appeal to accept his Albany paper. As a result, the *New Genesee Farmer*, dropping the "New" in 1845, main-

²⁰ *Country Gentleman*, 38:88-89 (February 6, 1873); *Cultivator*, n. s. 9:388-392 (November, 1852); Herbert A. Kellar, "Andrew Jackson Downing," "Charles Downing," *Dictionary of American Biography*, 5:417-419.

²¹ Herbert A. Kellar, "Solon Robinson," *Dictionary of American Biography*, 16:50-51; *Cultivator*, 8:27-28 (February, 1841); 8:100 (June, 1841); 8:197 (December, 1841); n. s. 2:10 (January, 1845); *Southern Cultivator*, 3:186 (December, 1845); 7:59 (April, 1849).

²² *Country Gentleman*, 8:9 (January 6, 1859).

tained a lively existence from 1840 to 1865.²³

The most prominent men associated with this periodical were Michael B. Bateham, Patrick Barry, James Vick, Joseph Harris, and Dr. Daniel Lee. Bateham, who formerly had been associated with Tucker, was the real spirit behind the paper in its early years. After migrating from England about 1820, he owned and operated a seed store in Rochester for a while. He also started an agricultural museum, which later editors seem to have discontinued. In 1843, he sold his interest in the *Genesee Farmer* and began traveling in the West.

In January, 1845, Bateham settled in Columbus, Ohio, and started the *Ohio Cultivator*, which became one of the most popular agricultural papers in the Old Northwest. He traveled widely over the state soliciting support for his enterprise and received free transportation on the stages, free hotel rooms, and a hearty welcome in every town. One of his chief innovations as an editor was his extremely popular "Ladies Department," which waged a vigorous campaign for more rights and respect for women. This column, under the management of his wife, Josephine, employed several able writers, including Frances D. Gage, a prominent leader in the movement for women's rights. Bateham sold the *Cultivator* in the fall of 1855 and retired to a farm outside Columbus, where he operated a large nursery. He continued for at least two years to write a column on horticulture.²⁴

Patrick Barry, born on a farm near Belfast, Ireland, worked for the famous Prince nurseries of Flushing, Long Island, before moving to Rochester about 1840. He established the Hope nursery in that city, and served as horticultural editor of the *Genesee Farmer* from 1845 to 1853. Later he edited the *Horticulturist* and in 1851 published a well known book, *The Fruit Garden*.

Vick came to the United States from England in 1833 and moved to Rochester in 1837. A florist and seedman, he soon became extremely interested in horticulture.

He began writing for the *Genesee Farmer* about 1848 and in 1852 bought the *Horticulturist* from Tucker, which Barry edited for him. From 1857 to 1862, he edited the *Rural New Yorker*, published at Rochester.

Joseph Harris, born at Shrewsbury, England, in 1828, worked as a student on the famous experimental farm at Rothamsted. He migrated to America in 1849, and soon became a regular writer for agricultural magazines. In 1855 he joined Tucker's *Country Gentleman* as associate editor, but a few years later he moved to Rochester and bought the *Genesee Farmer*. He published and edited the paper until 1866, when he merged it with Orange Judd's *American Agriculturist* of New York City.²⁵ Harris was best known for his popular column, "Walks and Talks on the Farm," which was read by thousands of farmers. After 1866, he entered a partnership with Judd that lasted until his death in 1892. Harris published three books — *Harris on the Pig*, *Walks and Talks on Manures*, and *Gardening for Young and Old*.²⁶

The years between 1820 and 1855, which witnessed a large expansion of agricultural journalism in the North, also brought a great deal of activity in the South. In 1828,

²³ *Genesee Farmer*, 9:369-370, 400-401 (November 16 and 30, 1839); Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 and July 1910*, 70.

²⁴ Blake McKelvey, ed., *Publications of the Rochester Historical Society* (Rochester, N. Y., 1940), 18:184-189, part 1; *New Genesee Farmer*, 1: *passim* (January 1, 1840); *Ohio Cultivator*, 1:1-4, 12-17 (January 1, 1845); 1:84 (June 1, 1845); 4:4 (January 1, 1848); 7:46 (February 1, 1851); 7:109 (April 1, 1851); 11:12-13 (January 1, 1855); 11:361 (December 1, 1855); 13:29 (January 15, 1857).

²⁵ This journal was established in April, 1842 by Anthony B. and Richard L. Allen, and became one of the outstanding agricultural periodicals of the country. Judd joined the editorial staff in 1853 and purchased the paper in 1856.

²⁶ *Publications of the Rochester Historical Society*, 18:184-189; Alfred C. True, "Patrick Barry," *Dictionary of American Biography*, 1:655; Edward R. Eastman, "Joseph Harris," *Dictionary of American Biography*, 8:315-316; Claribel R. Barnett, "James Vick," *Dictionary of American Biography*, 19:264-265.

John D. Legare established the *Southern Agriculturist* at Charleston, South Carolina, and in 1833 Edmund Ruffin started his *Farmers' Register* at Shellbanks, Virginia, moving it to Petersburg six years later. Ruffin's magazine continued publication for only 10 years, but in 1843 the *Southern Cultivator* was started in Augusta, Georgia, by J. W. Jones. Aside from Skinner's *American Farmer*, these were the chief agricultural periodicals in the Old South before the Civil War. The latter two deserve particular attention because of the distinction of their editors, and the *Southern Cultivator* was probably the only Southern agricultural journal to publish throughout the war.²⁷

Ruffin had gained renown 10 or 12 years before he began publishing the *Farmer's Register*. His extensive experimentation with marl (a crumbly limestone) and his writings had brought him wide publicity, and he was generally recognized as the most careful investigator among the agricultural reformers of his day. Although encouraged by the interest aroused as a result of his experiments and the slow spread of modern agricultural methods, Ruffin believed that a much more radical change would be necessary to save the farm economy of the South. He viewed with growing alarm the tendency of Southern farmers to wear out their land, sell it for almost nothing, and then emigrate to the West. This depressed the price of all land, the fertile as well as the poor, and made the task of persuading farmers to expend labor and capital on their farms more difficult. No man worked harder than Ruffin at trying to reverse this process, and few experienced keener discouragement or achieved greater success. Although he stubbornly persisted in agricultural work during most of his adult life, Ruffin does not quite fit the pattern of cheerful optimism which characterized most of the agricultural reformers of the ante-bellum period.

When he announced the publication of the *Farmer's Register*, Ruffin deplored the low state to which agriculture in Virginia had fallen. Despite the great improvements that many individuals had made in their

farm practices within the past decade or two, the average production and profits of Virginia farms had long been declining. He expected his journal to serve as a vehicle for exploring the reasons for this decline and proposing ways to halt it. If farmers would overcome their reluctance to communicate their knowledge and the results of their experiences to the paper, he believed that he could prove to all farmers the value of modern methods. All farmers could benefit from the experiences of others, and he wanted to make the *Register* a medium for spreading the best methods and the most accurately tested knowledge in all branches of agriculture. If the people would work with him, Ruffin did not doubt that he could soon demonstrate the great public utility of an agricultural journal. Without waiting for subscriptions to defray the expenses of publication, he made arrangements and incurred obligations at the outset to publish the journal for a year.²⁸

For the next 10 years, Ruffin employed the pages of the *Farmer's Register* to preach the gospel of agricultural reform. Like most of the reformers, he insisted that diversification coupled with a consistent, long-term program of land rehabilitation offered the only way out for most Southern farmers. Ruffin concentrated on the problems of Virginia and the south Atlantic region, but was fully aware of the state of agriculture in other parts of the country. He often advocated adoption in the South of Northern advances, particularly in livestock raising. Ruffin believed Southern farmers were notoriously negligent in this field and in order to succeed, would have to raise more grasses and legumes, such

²⁷ See brief histories of agricultural journals in *Genesee Farmer*, 9:129-130 (April 27, 1839); *Ohio Cultivator*, 11:24-25 (January 15, 1855); *Farmers' Register*, 1:62-64 (June, 1833); *Southern Cultivator*, 23:183 (December, 1865).

²⁸ Avery O. Craven, "Edmund Ruffin," *Dictionary of American Biography*, 16:214-216; *Farmers' Register*, 1:62-64 (June, 1833); 1:128 (July, 1833); 5:127-128 (June, 1837); *American Farmer*, 3:313-319 (December 28, 1821); 6:5 (March 26, 1824); *Genesee Farmer*, 4:385-386 (December 6, 1834).

as red clover and cowpeas. He long advocated cowpeas as perhaps the best source of cattle feed for farmers of Virginia and the Carolinas.

Ruffin devoted his greatest efforts, however, to revitalizing the soil by spreading marl, which he had used with such dramatic effects at his Coggins Point plantation on the James River. Through the *Farmer's Register* he publicized not only his own experiments, but also those of other farmers and planters of Virginia and the Carolinas. He missed no opportunity to publish letters and articles from subscribers who had successfully followed his system or some variant of it. There can be little doubt that Ruffin had some success in persuading farmers to follow his example. In 1852 he told the South Carolina Institute of Charleston that between 1838 and 1850 the value of land in the tidewater region of Virginia had risen by more than \$17,000,000 as a result of the use of marl and other forms of lime. If the years between 1828 and 1850 had been used for purposes of his study, he estimated that the increase in value would have totaled at least \$30,000,000. This rise in value had resulted from the application of marl and lime to about one-twentieth of the cultivated land in the tidewater region. He insisted that if the remainder of the land in this area could be limed, the land values would increase by hundreds of millions of dollars.²⁹

Although Ruffin must be judged one of the most important agricultural reformers America has produced, he was not a great success as an editor and publisher. At \$5.00 a year, the *Farmer's Register* cost about twice as much as most agricultural journals of the 1830's and 1840's, and farmers undoubtedly considered it much too expensive. The journal probably never had more than 1500 regular subscribers, and even in some parts of Virginia such papers as the *Cultivator*, the *American Farmer*, and the *Genesee Farmer* found a wider public. A thorough student in his field, Ruffin tended to write technical and ponderous articles, which many readers found dull and difficult to read.

In August, 1841, for example, he published a 10-page review of Justus Liebig's *Organic Chemistry in Its Application to Agriculture and Physiology*. Keenly interested in soil chemistry, Ruffin believed this book furnished more scientific facts and food for thought than any book he had seen, but it is doubtful whether many farmers or planters possessed a comparable interest.

By 1841, Ruffin admitted that his efforts to solicit large numbers of original articles or communications from his subscribers had failed. He had always written a large number of the articles in his journal, but now he was forced to fill in with material not closely related to practical farming. After the first three or four years, the *Register* probably did not bring in enough money to do more than pay expenses. In June 1841, Ruffin sent out bills for past due subscription fees totaling nearly \$5,000, but by August he had not collected a penny on them. He declared that with the largest list of subscribers in the paper's history, profits had sunk to their lowest point. Ruffin's strong partisanship, especially his bitter attacks on banks, which he failed to keep out of the *Register*, may also have hindered his efforts to increase circulation.

A combination of these factors, plus the economic depression following the panic of 1837, forced Ruffin to suspend publication of the *Farmer's Register* at the end of 1842. But this by no means ended his crusade for an improved system of agriculture. He continued his experiments with marl, wrote numerous articles for other journals, brought out several enlarged editions of his *Essay on Calcareous Manures*, served as president of the Virginia State Agricultural Society, and conducted an agricultural survey of South

²⁹ *Farmers' Register*, 1:1-64, *passim* (June, 1833); 1:241-242 (September, 1833); 1:631-632 (March, 1834); 3:190-191 (July, 1835); 5:370-371 (October, 1837); 7:153-155 (March, 1839); L. C. Gray, *History of Agriculture in the Southern United States to 1860* (2 vols., Washington, 1933), 2:780-782; *Report of the Commissioner of Patents for the Year 1852*, part 2, "Agriculture," 373-389.



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Carolina. In later life a strong Confederate, Ruffin was reduced to despair by the defeat of the South. He died by his own hand in 1865, unable to face the ruin left by four years of Civil War.³⁰

Probably the most important farm journal published in the lower South before the Civil War was the *Southern Cultivator*, established at Augusta, Georgia, in 1843 by James W. and William S. Jones. Within a few years, the new paper had attracted a fairly wide and enthusiastic following among progressive planters and farmers of Georgia and the Carolinas, and westward to the Mississippi River. Some planters, believing that the intellectual climate had become favorable to a general reform of Southern agricultural methods, made a special effort to obtain subscribers for the *Cultivator*. An "Old Correspondent" of Eufala, Alabama, who said he had been trying to promote the circulation of farm papers for 20 years, obtained 30 subscribers in 1843. In 1847, Charles Daugherty of Athens, Georgia, and R. S. Hardwick, Hancock County, Georgia, organized groups of planters in their communities, with each member attempting to get 25 new subscribers to the *Cultivator*.³¹

Five men, in addition to James W. Jones, edited the *Southern Cultivator* during the ante-bellum period. These were James Camak of Athens, Georgia, a leading agricultural reformer of the state, Dr. Daniel Lee of Rochester, New York, C. W. How-

ard, a minister and farmer of Kingston, Georgia, former editor of the *South Countryman* of Marietta, Dennis Redmond of Atlanta, who purchased the paper early in 1860, and Martin W. Philips of Edwards, Mississippi.

Under the management of this able group, the *Southern Cultivator* advocated a relatively consistent program for improving Southern farming methods. From the outset they declared that the whole Southern system was wrong, largely because every farmer tried to cultivate too much land, depended on one or two staples, and quickly exhausted the soil. Diversification of agriculture, perhaps even of the whole economy, afforded the only means of saving the South, whose countryside already bore a general appearance of exhaustion. Georgia and her neighboring states once possessed excellent soil, and good farmers had fully demonstrated that exhausted soils

³⁰ *Farmers' Register*, 3:227 (August, 1835); 3:768-786 (April, 1836); 9:38 (January, 1841); 9:459-469-507 (August, 1841); 9:577 (October, 1841); 10:1-3 (December, 1842); Demarce, *The American Agricultural Press, 1819-1860*, 351; Gray, *History of Agriculture in the Southern United States to 1860*, 2:780-782; Avery Craven, *Edmund Ruffin, Southerner* (New York, 1932); Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910*, 61.

³¹ *Southern Cultivator*, 1:54 (April 19, 1843); 2:206 (December 24, 1844); 5:136 (September, 1847).

could be rebuilt. Farmers and planters should waste no time in beginning to reverse the system in order to save the land.³²

Daniel Lee, who edited the *Southern Cultivator* from 1847 to 1859, probably contributed more than anyone to its success. One of the most active agricultural journalists of the period, he came to Georgia from Rochester, New York, where he had edited and published the *New Genesee Farmer*. He probably owned the New York paper during a good part of the time he served as editor of the *Southern Cultivator*. Originally a physician, he had become interested in soil chemistry and agriculture, and then journalism. Lee sought to determine whether farming could be placed on a solid scientific basis. Although he came to question whether a true science of agriculture really existed, he never doubted that agriculture would improve if the knowledge then available were applied. When he joined the staff of the *Cultivator* in August, 1847, Lee believed that agricultural improvement consisted chiefly in obeying the laws of nature. He wrote numerous editorials attempting to explain these laws insofar as they affected farming.³³

During the 12 years he edited the *Cultivator*, Lee constantly explored the problem of making the plantation economy of the South more profitable while at the same time improving the land. Nothing in the South struck him more forcibly than the lack of cows, sheep, and other natural producers of manure. Lee argued that everything taken from the soil had to be put back through the application of barnyard manure, green manures, lime, and other fertilizers. This presented an extremely difficult problem where so much of the agricultural production consisted of staples, and so little vegetable matter returned to the soil. Lee did not believe he had found a solution, but he advocated a system which included the raising of more livestock, rotating crops, sowing grasses, peas, and other forage crops, including the newly introduced Chinese sugar cane, keeping a cover crop on the land so it would

not leach or erode, and plowing under much of the green forage.

By 1858 Lee had come to question whether the policies advocated by the agricultural press afforded a remedy for the difficulties of Southern agriculture. In a letter to Luther Tucker he called for a searching review of the current agricultural literature, which often contained contradictions, errors, and follies. In the South, the abundance and cheapness of land and the scarcity and high cost of labor and capital tended to prevent the adoption of a system of farming which would save the soil from speedy impoverishment. Even the best journals did not offer solutions comprehensive enough to meet the needs of American agriculture, especially of the cotton and grain-growing areas. Lee doubted whether the American people were ready to adopt really sound systems of agriculture, or to support passage of progressive legislation then being debated. Always a strong advocate of agricultural schools, he thought adoption of the Merrill bill would be a start in the right direction. Other Southern papers frequently denounced Lee and the *Southern Cultivator* for trying to introduce "Yankee notions" into the South, particularly livestock raising, agricultural education, and government aid to agriculture. In a heated controversy with John C. Calhoun on the question of government aid to agricultural education, the journal stoutly held its nationalistic position until 1860.³⁴

Lee carried on his work in Georgia until well into the Civil War. He was appointed head of the agricultural division of the Patent Office in Washington, D. C.,

³² *Ibid.*, 1:54 (April 19, 1843); 3:8 (January, 1845); 7:33, 49 (March and April, 1849); 17:240 (August, 1859); 8:56 (February, 1860); 8:362 (December, 1860).

³³ *Publications of the Rochester Historical Society*, 18:184-189; *Southern Cultivator*, 5:104, 120 (July and August, 1847); 5:152, 168 (October and November, 1847); 5:185 (December, 1847).

³⁴ *Southern Cultivator*, 5:185 (December, 1847); 7:33, 49 (March and April, 1849); 9:177-178 (December, 1851); 15:10-12 (January, 1857); 18:122, 153 (April and May, 1860); *Cultivator*, Series 3, Vol. 6: 86-87 (March, 1858).

in 1849, but he continued to edit the *Cultivator*. In 1857 he became a lecturer on agriculture at the University of Georgia, and while holding this position he gave talks on farming in many counties of the state. Lee was a curious mixture of nationalist and states rights supporter. He seemed to favor strong state and Federal action to aid agriculture, but by 1858 he had become a vigorous defender of the slave trade as a means of overcoming the South's labor shortage. In 1859 he left the *Cultivator* to edit the *Southern Field and Fireside* of Augusta, a combination farm and literary journal. He remained with this paper at least until February, 1862, and continued to voice his favorite theme: ". . . the soil we now scourge will some day refuse us both bread and meat unless we treat it better . . ."³⁵

One of the most interesting and important campaigns carried on by the editors of the *Southern Cultivator*, especially Redmond, was an attempt to popularize a system of horizontal hillside ditching to prevent erosion. This development of the horizontal plowing introduced earlier by Randolph and Jefferson constituted the beginnings of terracing and contour plowing. The editors maintained that years of soil-building effort could be lost in one afternoon shower if the farmers did not take action to decrease erosion. The system advocated by the editors and correspondents of the *Cultivator* was used by a number of progressive farmers from South Carolina to Mississippi, most extensively and effectively, perhaps, by John C. Calhoun. The ditches, or guard drains, as they were often called, were constructed in parallel lines, with the aid of a leveling instrument, and the journal published numerous detailed essays on the various types and methods of building them. By 1860 the more advanced writers and planters had come to recognize the advantage of building ridges or terraces beside the ditches. In 1857 the *Cultivator* made an agreement with G. D. Harmon of Utica, Mississippi, an expert on "horizontalizing," to come back to Georgia, where he for-

merly lived, and assist interested planters in this work. For two dollars an acre, Harmon would superintend the construction of a few ditches on each farm and teach the planters or their overseers how to complete the project. Harmon apparently instructed a considerable number of planters in Georgia, South Carolina, and Alabama.³⁶

Martin W. Philips of Edwards, Mississippi, "the Sage of Log Hall," who wrote extensively for the *Southern Cultivator* for about 18 years, may be considered one of its editors, although he never held the position officially. Philips was one of the most unique planters in the South and one of the outstanding agricultural leaders of the country. Born in Columbia, South Carolina, and educated in medicine, Philips moved to Mississippi in 1829 and soon afterwards became a planter. Unlike his neighbors, who generally derided his "book farming," Philips carried on a diversified operation. He imported superior breeds of cattle, hogs, and sheep from the North, raised hay, including red clover and alfalfa, planted a large orchard and used modern farm machinery. Philips wrote extensively for many publications. From 1843 to 1845 he edited the *Southwestern Farmer* of Raymond, Mississippi, and from 1858 to 1860, the *Southern Rural Gentleman* of Grenada, neither of which received enough support to sustain publication. He also served as Southern editor of Tucker's *Cultivator* in the 1840's, but his most enduring connection was with the *Southern Cultivator*, for which he wrote regularly after 1847.³⁷

Like Lee, Philips attempted to convince Southern farmers and planters that they ought to sow grasses and hay crops in order to increase the number and quality of

³⁵ *Southern Cultivator*, 7:185 (December, 1849); 15:237 (August, 1857); 16:233-236 (August, 1858); 17:81-82 (March, 1859); 18:362 (December, 1860); 20:49 (February, 1862).

³⁶ *Ibid.*, 3:88-89 (June, 1845); 5:108 (July, 1847); 15:250, 298 (August and October, 1857); 18:106-110, 182-183 (April and June, 1860).

³⁷ Claribel A. Barnett, "Martin W. Philips," *Dictionary of American Biography*, 14:537-538; *Southern Cultivator*, 17:304 (October, 1859).

livestock and the production of milk, butter and cheese. Nothing vexed him more than to see Northern hay and meat in Southern markets, since he believed that no region could more easily be self-sufficient in these products than the South. He insisted that planters could pursue a mixed husbandry without interfering seriously with the cotton crop, and that, in addition, they would save their land and make a greater profit. He thought the general belief in the profitability of cotton raising got the South into great difficulty, for cotton only appeared to be remunerative unless the planters raised their own food products and conserved their land. During the Civil War he declared that the South had only itself to blame for the unreasonably high price of meat and lard.

Philips directed his chief criticisms of his fellow planters at their notorious neglect of hay crops and grasses for pasture. He declared that nothing would improve Southern farming more than good pastures and that nothing was more difficult to get Southerners to believe in. Planters were more interested in killing grasses, ". . . and to name pastures," he said, "is the next thing to insulting them." Philips experimented with many kinds of grasses and hay crops, including clover and alfalfa. He raised alfalfa for over 20 years and considered it the most valuable hay crop he knew. Although bitterly discouraged by the coming of the Civil War and the chaos left by that conflict, Philips continued his work on behalf of agriculture and education almost to the end of his life in 1889.³⁸

Beginning about 1840, farm journals appeared in rapid succession in the region west of the Appalachians. The *Western Farmer and Gardener* at Cincinnati, the *Agriculturist* at Nashville, Tennessee, and the *Prairie Farmer*, at Chicago, all established in 1840; the *Michigan Farmer* at Detroit in 1841; the *Valley Farmer* at St. Louis in 1848; and the *Wisconsin Farmer*, at Racine, in 1849, were probably the best known of the group. Before 1860 two had started on the West Coast—the *California Farmer* at San Francisco in 1854 and the *Oregon Farmer* at Portland in 1858. These

journals had many editors and publishers during the 20 years preceding the Civil War, but only a few of the most prominent can be discussed in an article of this nature. Such men, however, as Tolbert Fanning, John S. Wright, J. Ambrose Wight, John A. Kennicott, Norman J. Colman, David J. Powers and John W. Hoyt cannot reasonably be omitted even from a brief survey of agricultural editors of the antebellum period.³⁹

Tolbert Fanning, a minister and educator, was the chief promoter of the *Agriculturist*, of Nashville, which served as spokesman for the State Agricultural Society of Tennessee. Fanning agreed with agricultural reformers of the lower South that the one-crop system constituted the great curse of that region. In his efforts to educate the farmers of Tennessee, he made extensive tours over the state, and into northern Alabama and Mississippi, closely studying the agriculture of these areas and publishing detailed descriptions of what he saw. He found that wide areas of middle Tennessee and northern Alabama were rapidly being ruined, and that they would soon be exhausted and eroded beyond redemption unless farmers changed their system of agriculture. In most areas the livestock appeared poor, lanky, and light, requiring far too much corn to make it produce good meat.

Fanning devoted a major portion of his efforts toward the improvement of livestock. For the benefit of farmers who were making an attempt in this direction, he published essays on the different breeds of hogs, cattle, and sheep, and their management. Fanning was a strong advocate of Shorthorn cattle and Berkshire hogs, specimens of which he imported from the

³⁸ *Ibid.*, 2:62 (April 17, 1844); 5:40 (March, 1847); 7:59 (April, 1849); 9:22 (February 1851); 15:76-77 (March, 1857); 20:80, 89 (March and April, 1862); 20:196 (December, 1862; Barnett, "Martin W. Philips," 538.

³⁹ See Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910*, 3, 23, 32, 83, 100, 139, 175, 188; Demaree, *The American Agricultural Press, 1819-1860*, Chapter 1, *passim*.

North and raised on his farm. He believed that any farmer could greatly improve his herd of cattle or hogs by crossing with purebred stock, since half-breeds were far superior to serubs. Any reasonable farmer, he thought, could readily see that the better breeds of animals were far more valuable than serubs, and would quickly pay for their extra cost and care.⁴⁰

Fanning possessed a keen interest in natural science and education, becoming an amateur chemist, botanist, geologist, and conchologist, and a dedicated teacher. Beginning about 1842, he published a series of critical articles on the common schools, most of which he believed were little better than prisons. One article declared that children spent their years in school learning to write their names, read the primer, cipher to the rule of three, and to hate books and learning for the rest of their lives.

In January, 1843, Fanning's interest in education led him to establish a school on his farm, "Elm Crag," about five miles outside Nashville. He combined practical instruction in agriculture with regular academic subjects. The school's surprising success led to the founding of Franklin College in 1844, with Fanning as president. Here again, he gave manual training and agriculture an important place in the curriculum. Students devoted two to five hours a day to these subjects and kept whatever profits they made. This school, which flourished until the Civil War, absorbed so much of Fanning's time that he resigned as editor of the *Agriculturist* in June, 1844. He continued, however, with his farming, experimenting, and research for most of his life. He was succeeded as editor by Charles Foster, formerly of the *Western Farmer and Gardener*, but without Fanning the journal soon went the way of many others, ceasing publication in December, 1845.⁴¹

About six months after Fanning established the *Agriculturist* at Nashville, John S. Wright, Secretary of the Union Agricultural Society of Chicago, persuaded that organization to found a journal, mainly as

a service to members of the society. Two numbers appeared in 1840 under the name *Union Agriculturist*, soon changed to *Union Agriculturist and Western Prairie Farmer*. This was the origin of the *Prairie Farmer*, which under the direction of John S. Wright, land speculator, reaper manufacturer and educational leader, became perhaps the outstanding farm journal in the West. Wright assumed sole ownership in 1843, and he soon attracted a group of writers who made the journal one of the liveliest and most remarkable publications of its day. Wright, who came to Chicago from Sheffield, Massachusetts, in 1832, made and lost a fortune by 1837, when he was only 22 years old. Being a man of wide activities, he combined the interests of agriculture, education, and labor in one journal. John Gage, editor of the "Mechanical Department" of the paper, was a labor leader in Chicago. Wright played a leading role in improving the common schools of Illinois and promoting teacher training, while J. Ambrose Wight, John A. Kennicott, and Jonathan B. Turner wrote some of the best agricultural essays that appeared in any paper in the country.⁴²

Ambrose Wight came to Illinois from Vermont in 1836 and settled at Rockford, where he worked in a store, farmed, and edited a local newspaper until 1843. Between 1841 and 1843 he wrote several articles for the *Prairie Farmer*, and in the latter year Wright hired him to be associate editor. He held this position almost constantly until 1855, when he resigned to become a Presbyterian minister and do

⁴⁰ *The Agriculturist*, 1:1-2, 12-15 (January, 1840); 1:217-218 (October, 1840); 2:15 (January, 1841); 2:240 (October, 1841); 3:49-51 (March, 1842); 4:113-114 (August, 1843).

⁴¹ *Ibid.*, 3:83-84, 134-135, 160-161 (April, June and July, 1842); 4: *passim* (January, 1843); 5:86 (June, 1844); Harris E. Starr, "Tolbert Fanning," *Dictionary of American Biography*, 5:268-269.

⁴² *Union Agriculturist and Western Prairie Farmer*, 1:7-8 (January, 1841); 1:21 (March, 1841); *Prairie Farmer*, 3:1 and frontispiece (January, 1843); Lloyd Lewis, "Prairie Farmer — Its Beginnings" and "Prairie Farmer — Its Middle Years," *Prairie Farmer*, 113:5-20 (January 11, 1941).

evangelistic work in the slums of Chicago. Wright did most of the editorial work on the paper between 1843 and 1855, except for a short period in 1852 when he edited a religious paper.

John A. Kennicott, widely known nurseryman and experimenter of Northfield, Illinois, and founder of the Northwestern Fruit Growers' Association, became closely associated with the paper about 1852, and the next year took over the "Horticultural Department." He and Turner carried on a long and intensive campaign to promote the raising of good fruit in the West and to persuade farmers that fruits and vegetables were necessary ingredients of a wholesome diet. Turner, a New England educator who joined the faculty of Illinois College at Jacksonville about 1836, was a naturalist, gardener, and fruit raiser who was deeply interested in improving the agriculture of the West. He and Wright saw the difficulty of developing the prairie country without fencing material, and they were among the first to believe that the Osage Orange would furnish an adequate hedge fence. Turner, particularly, took on the task of developing and promoting it after 1844, when Charles H. Larabee of Arkansas left a package of seed at the *Prairie Farmer* office.

These writers dedicated the *Prairie Farmer* to the cause of diversified agriculture in the West, urging the farmers to raise improved livestock, grasses, abundant hay crops, and fruit and vegetables, and to invest in labor-saving machinery. Soil exhaustion and erosion did not present serious problems as yet, but the editors argued that only a few years of robbing the land would bring on the same conditions which already plagued farmers of the East and South. Exclusive dependence on wheat was equally as dangerous and foolish as the Southern farmer's dependence on cotton or tobacco. The editors also waged the battle of the small farmers against the big stockmen; a very important issue related to the fencing laws. Wright, Turner, and Solon Robinson, who wrote for the paper frequently, all be-

lieved the fencing laws should require the stockman to fence his cattle in, rather than letting them run on the open range and force the small farmer to fence against them. Although a large capitalist himself, Wright carried on a ceaseless campaign against the Illinois Central Railroad's land monopoly until the company began selling large quantities of land to the farmers in 1855.⁴³

The *Prairie Farmer's* long campaign in behalf of public education in Illinois established it as unique among agricultural journals in the West. Norman J. Colman's *Valley Farmer* and John W. Hoyt's *Wisconsin Farmer* both had strong educational departments, but neither began as early or worked as consistently for education as did Wright, Kennicott, and Turner. In 1835, Wright built the first public school building in Chicago at his own expense, and for 15 years he made the *Prairie Farmer* an excellent educational journal—until 1855 the only one in Illinois. Wright, who always supported public as opposed to private schools, probably made the first proposal for the examination of teachers by a state superintendent of schools, and, in fact, anticipated most of the educational reforms of the latter half of the 19th century and first decade of the 20th. He was the real power behind the common school convention which met in Chicago in October, 1846 and the *Prairie Farmer* office served as the registration center for delegates. Out of this meeting came the teachers' institute, which the editors of the *Prairie Farmer* had been advocating. It also resulted in formation of the Northwestern Educational Society and the Illinois Auxiliary of the Board for National Popular Education, with Wright as secretary of both.

Turner, generally recognized as the

⁴³ *Ibid.*, 2:23, 81-88 (March and October, 1842); 3: frontispiece, 1-3, 19-23, 121, 145 (January, June, and July, 1843); 12:564 (December, 1852); 13:16-17 (January, 1853); Lewis, "Prairie Farmer," *passim*; Robert F. Seybolt, "Jonathan B. Turner," *Dictionary of American Biography*, 19:68; Russell H. Anderson, "John S. Wright," *Dictionary of American Biography*, 20:557-558.

father of the University of Illinois, was prompted to launch his campaign for agricultural and mechanical education by an article on the subject published in the *Prairie Farmer* of November, 1851. He quickly wrote to Wright after seeing the article and that same month made his proposal for an industrial university in an address before an Illinois farmers' convention at Granville. Wright withheld his approval of the scheme for some time because it did not include his plan for a state normal school. He maintained that Illinois and the West would have to have well-trained teachers and a higher level of general education before professional and technical schooling would be of much use. Turner and Kennicott, however, brought him around by agreeing that academic education and teacher training would be a part of the job of the new university.

Turner soon published his idea that the Federal Government should grant land to all the states to endow agricultural and mechanical education, which in March, 1853 gained the endorsement of the Illinois state legislature. This is often considered the first concrete public announcement of such a plan made in America. Wright, whose main interest lay in practical farming and religion, did not push the fight for a public agricultural and mechanical college hard enough to suit the enthusiastic Turner and Kennicott, largely because he sympathized to some degree with the church-college leaders who opposed the plan. Nevertheless, the *Prairie Farmer* carried on a sane and thorough discussion of agricultural education, and aroused much public support in its favor. Although the editors were keenly disappointed that the legislature failed to establish the Industrial University in the 1850's, Illinois has often been given credit for initiating the movement which culminated the Morrill Act.⁴⁴

The *Prairie Farmer* lost much of its early vigor after 1855. Wright left in 1855, Wright went bankrupt in 1857, when his reaper business failed, and the paper was sold, first to James C. and William H. McDill and then to Henry D. Emery and Com-

pany. Emery changed the name to *Emery's Journal of Agriculture*, which it carried for about a year, but he soon returned to the old title, *Prairie Farmer*. Kennicott stayed with the paper until about the time of the Civil War, and Charles D. Bragdon of Chicago and Charles Betts of Michigan were brought in to carry on the editorial duties. Although the paper seems to have lost money for several years, it continued publication and survives today as one of the important agricultural journals of the country.⁴⁵

Brief mention should be made of four additional men who devoted a considerable portion of their lives to agricultural journalism in the West. Norman J. Colman, who purchased the *Valley Farmer* at St. Louis in 1855, spent most of his adult life in farm journalism and agricultural reform in Missouri and the Midwest, and later became first Secretary of Agriculture. Mark Miller, David J. Powers, and John W. Hoyt made the *Wisconsin Farmer* one of the prominent farm journals in the West during the 11 years preceding the Civil War.

Miller, who ran a book store in Racine, Wisconsin, and had worked on Tucker's *Genesee Farmer* in the middle 1830's, began publishing the *Wisconsin Farmer* in May, 1849. He moved the journal to Janesville in 1851 and to Madison in 1855, when he sold it to Powers. Miller also published an Iowa edition at Dubuque, and he made his paper a spokesman for the most newly settled prairie country. He campaigned vigorously for the planting of trees on the prairie, the starting of orchards, and the raising of livestock, in or-

⁴⁴ *Prairie Farmer*, 2:32, 89 (March and November, 1842); 4:121-123 (May, 1844); 5:137-152 (June, 1845); 6:270, 351-353 (September-November, 1846); 7:192-193 (June, 1847); 11:494-495 (November, 1851); 12:10-11, 68-74 (January and February, 1852); 12:266-269 (June, 1852); 13:114 (March, 1853); 15:24-27, 193-195 (January and June, 1855); 18:177 (March, 1858); Lewis, "Prairie Farmer."

⁴⁵ *Ibid.*, 17:310 (September 24, 1857); *Emery's Journal of Agriculture*, 1:1-8 (January 1, 1858); *Emery's Journal of Agriculture and Prairie Farmer*, 2:232 (October 7, 1858); *Prairie Farmer*, 19:34 (January 20, 1859).

der that farmers would not become too dependent on wheat. He also gave a great deal of attention to the latest types of farm machines, especially reapers and threshers.⁴⁶

Powers was a machinist, manufacturer, and patent expert, who moved to Wisconsin in 1838, and became a farmer, real estate operator, railroad director, and legislator. While living at Madison, where he moved in 1853, he spent about eight years cultivating and improving a section of prairie land. In addition to editing and publishing the *Wisconsin Farmer* from 1855 to 1861, he became a leader in the state agricultural society. Powers experimented with and advised farmers on the latest agricultural machinery and, about 1860, invented a self rake attachment for reapers.⁴⁷

John W. Hoyt became associate editor with Powers in January, 1857, when he was 26 years old. He had studied law and chemistry and taught chemistry in his home state of Ohio before he moved to Madison. Hoyt soon became a leader in agricultural affairs in Wisconsin, and as editor of the *Farmer* he traveled widely over the state giving lectures on agricultural improvement in any settlement that could amass a crowd to hear him. He and Powers also traveled east, attending fairs and observing agricultural conditions from Wisconsin to the Atlantic seaboard. In 1859, Hoyt became secretary of the Wisconsin State Agricultural Society and remained the directing force of that organization until 1872. He also had a leading part in the movement for agricultural education in Wisconsin, and after the War he helped organize an agricultural college.⁴⁸

The agricultural editors of the early 19th century believed firmly that they belonged to an age of progress and that the farmers, who constituted the chief economic class of the country, must play their role in the improvement of society. For the most part, the editors possessed an unquenchable optimism, insisting that the application of knowledge to agriculture

would inevitably bring a better life to rural America, as well as a greater profit. Although men like Daniel Lee and Ambrose Wight admitted that science had not yet found answers to many of the farmers' problems, they seldom doubted that future developments would bring the solutions. J. W. Hoyt of the *Wisconsin Farmer* expressed the sentiments of other agricultural reformers, and perhaps of the times, when he declared in 1858 that his century would be termed the "century of science and progress."⁴⁹

Antiquarians may talk as they will, and longingly look back upon the glorious past— . . . a whining clergy may demonstrate its beggarly faith in the great providence of God by denouncing the boast of enthusiasts over the glory of the 19th century, and by deprecating the 'sad materialism of the age,' . . . yet after all there is no truth more plainly written upon the face of the world, than that of sure and eternal progress."⁵⁰

Hoyt and others insisted that this progress was not alone material, but that people would become better as well as richer. Men had to make material gains before they could reach a "high condition of intellectual and social life." Although intellectual and social development would admittedly come slowly, the progress already made afforded sufficient reason for optimism. Agricultural editors and reformers believed that the improvement of farming constituted the first step toward a better life for all America.

⁴⁶ *Wisconsin Farmer*, 2:1, 18, 36, 48, 49 (January, February and March, 1850); 3:169, 190 (October, 1851); 7:321, 345 (November, 1855). For a more complete study of Colman, see Lemmer, *Norman J. Colman and Colman's Rural Worlds: A Study in Agricultural Leadership*.

⁴⁷ W. P. Powers, *Some Annals of the Powers Family* (Los Angeles, 1924), 202-207; *Wisconsin Farmer*, 7:321, 345 (November, 1855); 11:185 (May, 1859); 13:353-354 (October, 1861).

⁴⁸ *Wisconsin Farmer*, 9:1 (January, 1857); 1:415, 451 (November and December, 1857); 10:38-39, 72-74, 113-114 (January, February and March, 1858); 10:456-460, 474 (December, 1858); 11:69-70 (February, 1859); 11:455, 460 (December, 1859); Henry J. Peterson, "John Wesley Hoyt," *Dictionary of American Biography*, 9:321-322.

⁴⁹ *Wisconsin Farmer*, 10:10-11 (January, 1858).

Dairy Journalism: Studies in Successful Farm Journalism

JOHN T. SCHLEBECKER

The first dairy farm journal appeared at Jefferson, Ohio in 1852. Since then well over 50 such papers have been started at one place or another in the United States. Few of these lasted more than five years. The high mortality rate obviously suggests the question of why only a small minority of these journalistic adventures succeeded. The reasons for the failure of any specific dairy journal are difficult and often impossible to determine. But the main characteristics of successful papers can be discovered, and these may be tentatively identified as causes for success. Failures, where the reasons are apparent, seem to result from a deficiency in those qualities which are observable in successful journals.

This article is intended to present some of the possible reasons for the continuous publication of certain dairy periodicals.¹ (The analysis necessarily includes some account of the history of dairy farm journalism.) A review of all of the papers is impractical in a brief survey. Instead, this account is based primarily on the history of the two oldest and still existing dairy journals: *The Jersey Bulletin*, begun in 1883, and *Hoard's Dairyman*, founded in 1885.

Perhaps a few tentative propositions can be advanced to explain the success of some of the journals. These initial hypotheses may then be tested against the evidence which will be presented later. First of all, in order to publish a successful paper for dairy farmers, editors apparently had to meet certain definite external and internal requirements. Of these, the external conditions were often the most important.

When a publisher began his journal he found that a fair level of farm prosperity was helpful and sometimes seemingly necessary. Furthermore, the farmers in the particular circulation area had to be interested in dairying. With few exceptions, the magazines of national prominence were originally intended for the farmers of a small and specific locality.²

Often journals for cattle breeders were national in scope right from their beginning. Even so, they, too, depended on an already established clientele. Some historians have believed that editors by their individual efforts could change the practices or crops of a region. This hypothesis does not stand up, however, under the test of what actually happened. Editors followed, rather than led, in any process of general change. Successful editors began their journals in regions where a considerable number of potential subscribers already existed. In these places dairy specialization was usually well advanced. When farmers had developed only a sudden and temporary interest in dairying, they did not, as a rule, prove to be reliable subscribers. Farmer interest had to

¹ This discussion, and that which follows, is based on a wide review of the editorial policies of the dairy farm papers published between 1852 and 1950. The documented details of this survey will be available in the forthcoming *History of Dairy Journalism in the United States, 1810 to 1950* by John T. Schlebecker and Andrew W. Hopkins, to be published sometime in the Fall of 1957 by the University of Wisconsin Press.

² Favorable climate was necessary before farmers would take an interest in dairying, but since most of the United States has such climate, this consideration is of no great importance in the present discussion.



W. D. Hoard at His Editorial Desk

be stable as well as widespread.³ Otherwise, journalists faced ultimate and generally imminent failure. Only when these external conditions were met did dairy papers have any chance of lasting more than a few years. And the successful magazines all had these essential environmental conditions. When the outside requirements were satisfied, then an individual had to appear who was interested in dairying and was willing to publish a farm journal.

Why should anyone want to edit a farm dairy paper? Although little historical evidence can be found to support the conjecture, probably the prospective editor first decided to publish a journal and then cast about for a likely specialty. However that may be, the founder of a dairy periodical had to have enough capital or credit to begin and to continue the journal.

guarantee success, nor did it necessarily lead to national circulation. For example, *The Democrat and Dairyman* of Waterloo, Wisconsin, begun in 1884, had the same external conditions as *Hoard's Dairyman*, but the former ceased to be a dairy paper in 1905. Perhaps the dairy farmers of the area were not Democrats. The *Livestock and Dairy Journal* of Fresno, California (1903-1916) should have prospered on a purely regional basis. Perhaps reader resistance accounts for its failure, and perhaps the effort to cater to two different types of business caused its end. Furthermore, where farmers were only temporarily engaged in dairying, editors and publishers sometimes overestimated the permanence of the change. For example, Kansas farmers made a temporary shift to dairying between 1890 and 1900. This change was incomplete, apparently, but several editors began papers which probably were started to take advantage of the new interest. The list of efforts is impressive considering the brief time span involved. The *Kansas Dairyman* of Eureka, Kansas, begun in 1898, died in 1899; *Jensen's Dairyman*, begun in Beloit, Kansas in 1898, lasted until 1900; the *Kansas Dairy Farmer*, published at Enterprise, Kansas, ran from 1899 to 1900; and the *Dairy Age* of Beloit, Kansas, was published from 1900 to 1903.

³ But a well developed regional interest did not

Usually, but not always, he seemed to need some experience in publishing.⁴ And did not seem to attract many readers. But demands that farmers use silos, or accept the Babcock butterfat test were important issues from the farmer's viewpoint, and crusades for their adoption apparently led to increased circulation. The editor also had to support his arguments with information, and was usually required to repeat once he got under way, the editor and publisher also had to have enough talent to continue his venture.

Possession of talent was perhaps one of the more important requirements for success. Where or how editing and publishing talent originates is difficult to determine. But first and foremost, the prospective editor and publisher had to have business sense. A second important talent may be described as a prophetic sense of mission, and a real zeal to effect improvement in dairy farming.

Historically, discussions of trivial matters, even if greatly emphasized by editors, details and facts over and over. When editors lacked genuine zeal or failed to present a large body of helpful information, their papers almost inevitably failed in a short time.

A third talent — the ability to get along with his readers — seemed necessary. In the long run, successful editors seem not to have offended any large segment of their real or potential public. Frequently successful editors made caustic comments, but these were directed at those who were not likely to be subscribers.

Journals intended primarily for dairy farmers appeared rather late in American history. Between 1810 and 1852 no specialized dairy periodicals existed, and dairy information was carried, if at all, by the general farm papers. The information was at first presented rather haphazardly, and the particular feature of dairying which an editor emphasized depended largely on his personal inclination. For example, John S. Skinner, founder and editor of *The American Farmer* (1819 to 1829), was particularly interested in the breeding of cattle. As early as 1819 he recommended the

use of the single purpose cow, that is, one bred for milk or for beef, but not for both.⁵ Skinner also urged his readers to feed their cattle well, and he offered advice on the manufacture of dairy products. He early typified the approach of the general farm papers to dairy problems.⁶

On the whole, early editors were more interested in the problems of breeding than in anything else. Thomas Fessenden, founder and editor of *The New England Farmer* (1822 to 1846), supported various foreign breeds, but largely because of their supposed general purpose qualities.⁷ Incidentally, discussions about general versus special purpose cattle took up considerable space in the early farm press. As early as 1834 the editors of *The Cultivator* were led to assemble their information on breeds and breeding under the heading: "Cattle Husbandry."⁸

The development of the special column was an indication of what time might bring. It is only a short step from column to

⁴ The editors of the more important and long-lived dairy journals generally had previous experience or training in journalism. And this, rather than knowledge of dairying seems to have accounted for their success. Some of the successful editors were preceded or followed by men who were unsuccessful. Often the less successful editors were those who had had practical experience in some line of dairying, but little or no experience in editing or publishing. In contrast, W. D. Hoard of *Hoard's Dairymen* had many years experience as a newspaper editor; W. A. Gordon of *Dairy Record* worked on newspapers and did some free lance writing before he turned to editing; Thomas D. Cutler of *The Ice Cream Trade Journal* began his career in an entirely unrelated field of technical journalism; and F. H. Kimball of *Kimball's Dairy Farmer* very probably had worked at the newspaper business under the guidance of his father. Of the highly successful editors, only D. H. Jenkins entered on a career as journalist without any notable experience along those lines.

⁵ *The American Farmer*, 2:81, 318 (1821); *ibid.*, 1:137, 139 (1819).

⁶ *The American Farmer*, 1:137, 139, 90 (1819).

⁷ *The New England Farmer*, 4:84, 395-396 (1826); *The American Farmer*, 1:137-139 (1819); *The New England Farmer*, 4:1-5, 225 (1826); see index to the volume; see also 41-43; *ibid.*, 10, or n. s. 1:224 (1832).

⁸ *The New England Farmer*, 4:5, 292-293 (1835); *The Cultivator*, 1:15 (1838) 2nd ed.

dairy periodical.⁹ The attention editors gave cattle breeding seemed to reflect reader interest.¹⁰ Reader interest also offers some explanation for the later development of journals intended for partisans of particular breeds. Simple controversy in the general agricultural journals changed to acrimonious dispute in several later breeder magazines.

During the 1830's and 1840's, commercial dairying became more appealing to many farmers, especially those located near cities on the east coast. The general farm papers reflected this new interest by carrying a greater proportion of articles on the manufacture of dairy products and by introducing market reports of a sort. Editors also occasionally recommended dairying as a specialty, although indirectly. Editors became aware of the fact that farmers were concentrating on dairying in some places, and *The Cultivator* of 1849 even carried a few items about farmers who had become commercial dairymen.¹¹ By 1853 Luther Tucker had included a special column entitled "The Dairy," in his *Country Gentleman*.¹² In general, however, the editors viewed dairying as a part of the general farming complex. This idea was well expressed by a bit of verse which John Skinner printed in his *Monthly Journal of Agriculture* in 1848:

Cultivate little, but cultivate well,
Your crops alternate, if good produce you'd
sell;
Your soil manure often — the return it yields
Will tenfold repay what you spend on your
fields.
Sow grass, too, at times, if you wish to make
sure
of having a plentiful stock of manure.
Without grass you've no cattle — without cattle
'tis plain,
You'll have no manure and without that no
grain.¹³

On the whole, editors seemed but dimly aware of the changes taking place. But by 1850 at the latest, dairying was a specialty in several regions. Thus the condition was met for the advent of a distinct dairy press.¹⁴

The earliest dairy journals were, however, only partly intended for dairy farm-

ers. The first editors also attempted to cover general farm topics. The very first of these hybrid journals was the *Western Reserve Farmer and Dairymen*, published at Jefferson, Ohio in the region where the factory production of cheese had begun.¹⁵ Apparently the editor, N. E. French, could not secure enough dairy material for the journal, and subscriptions were not great enough to make his paper prosperous.¹⁶ The journal began and ended in 1852.

The general farm paper and the later hybrid dairy journal were not the only ancestors of the dairy press. Another line of evolution came through the weekly rural press. In fact, more efforts at dairy farm journalism began in the offices of country editors than in any other place. In 1859, the *Dairymen's Record* of Little Falls, N.Y. was printed in conjunction with the *Mohawk Courier*, and in 1881 the *Dairy and Farm Journal* of West Liberty, Iowa was printed by J. Maxon, an established printer.¹⁷ In 1883 *The Dairy Farmer* of Chariton, Iowa was begun under similar conditions, and in 1883 Joseph Eveland of

⁹ *Hoard's Dairymen* arose out of a dairy column.

¹⁰ For examples of editorial interest see: *The New England Farmer*, 19, or n. s. 10:156 (1840-41); *The Cultivator*, n. s. 1:39 (1844); *The Prairie Farmer*, 8:56-57 (1848); *The American Agriculturist*, 10:284-285 (1851).

¹¹ *The Cultivator*, n. s. 6:10, 141, 234 (1849).

¹² *The American Agriculturist*, 1 (1843); *The Cultivator*, 3:143 (1838) 2nd ed. 4:134 (1838) 2nd ed. *Ohio Cultivator*, 9:244 (1850); *The Country Gentleman*, 1:229 (1853).

¹³ *Monthly Journal of Agriculture*, 2:108 (1848).

¹⁴ Percy W. Bidwell, "The Agricultural Revolution in New England," *American Historical Review*, 26:691 (1921).

¹⁵ *Western Reserve Farmer and Dairymen*, 1:1, 8 (March 1, 1852); P. W. Bidwell and John I. Falconer, *History of Agriculture in the Northern United States, 1620-1860* (New York, 1941), 430.

¹⁶ Letter from N. E. French to W. H. Catheort, dated August 29, 1908 and inserted in the front of the volume of the *Western Reserve Farmer and Dairymen*, 1 (1852), on file at the Western Reserve Historical Society library.

¹⁷ *The Dairymen's Record*, 1: volume binding 1; (1859); *Dairy Farmer*, 1:2 (1860); Gerald L. Seaman, *A History of Some Early Iowa Farm Journals* (Unpublished M. S. thesis, Iowa State University), 72.

Franklin, N. Y., changed the title of his weekly newspaper from the *Register* to the *Delaware County Dairyman and Register*. Apparently he attempted to combine weekly and dairy paper in one.¹⁸ *Kimball's Dairy Farmer*, begun at Waterloo, Iowa in 1903 originated under somewhat similar circumstances.¹⁹ Many obscure dairy journals were begun of which little is known except the title. A number of these arose in connection with the publication of some rural newspaper. All failed after a few years of life. Probably they were begun before their region was sufficiently converted to dairying. Only Kimball's venture seems to have been an exception.²⁰

Of course, not all efforts begun in the offices of the rural press were failures. Actually the rural newspaper offered several advantages to the publisher of a dairy periodical. A press, the rest of the physical plant, potential advertisers and a list of subscribers were all readily at hand. These were fairly considerable assets in any essay into dairy journalism. The financial support which a weekly paper could give an infant dairy journal was also important. Neither A. W. Eaton of the *Dairyman's Record* of Little Falls, nor W. D. Hoard of *Hoard's Dairyman* of Fort Atkinson, Wisconsin, ever admitted publicly how much early financial support was derived from their weekly papers, but it was probably substantial.

Important as this financial support was, it does not fully explain why country editors should be more attracted to editing dairy journals than were other editors. The answer undoubtedly lies in the restricted areas in which dairy husbandry became a significant specialty. Only the local editor could easily know how many individuals were involved in dairy farming, and how many of these were likely to be potential subscribers.²¹

Elements other than the number of dairy farmers entered into the success or failure of dairy journals. Editors charged that farmers were uninterested in book learning, and there must have been something to the charge. Even in a dairy region

journals could not survive if farmers refused to subscribe.²²

A shortage of advertisers before 1880 may have been just as important in making life especially hazardous for dairy periodi-

¹⁸ Seaman, *A History of Some Early Iowa Farm Journals*, 14-15; Rowell's *American Newspaper Directory*, 1884 (New York, 1884).

¹⁹ *Kimball's Dairy Farmer*, 1:1 (January 15, 1903); see also Seaman, *A History of Some Early Iowa Farm Journals*, 11-12. The *Dairy Farmer* was an outgrowth of *The Creamery Journal* which Kimball began in 1890 and which was for a while edited and printed in conjunction with a newspaper owned by his father. See also *The Creamery Journal*, 2 (February 1891); 3:16 (December 1892); 4:22 (January 1894).

²⁰ See Stephen Conrad Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910* (Washington, 1941), for a list of failures and where they were originally published.

²¹ On the other hand, editors were prone to error. And some of them aimed too low. Clearly parochial dairy journals failed as readily as those which were aimed too soon at a national circulation. Examples of journals which probably failed because they were too local are *The Dairy Bulletin* of Macedonia, Ohio which was begun and ended in 1909, and the *Colorado Dairyman* of Denver, started in 1909 and concluded in 1915. A few other journals may exhibit the same difficulty, although not as clearly. For example, *Heatwole's Dairy Paper*, published at Northfield, Minnesota between 1906 and 1908, or the *News and Dairyman* which appeared at Hartland, Wisconsin from 1893 to 1895. In these cases the expressed editorial policy, plus the quality and nature of the contents of the journals indicate a limited aim and an appeal to a small local audience. In a somewhat different vein, the *Monthly Bulletin of the American Jersey Cattle Club*, published at Newport, Rhode Island, 1877 to 1881, also aimed too low. Its editors expressed the intention of serving only breeders, carried very little dairying material, and failed to achieve very wide circulation.

²² Some of the Iowa and Wisconsin newspapers which failed include: *Stock and Dairy Gazette*, Sibley, Iowa, 1877-78; *Dairy Farmer*, Chariton, Iowa, 1883-89; *Dairy and Farm Journal*, West Liberty, Iowa, 1881-1887; *Creamery and Dairy*, Clarksville and Waterloo, Iowa, 1891 to 1892 or later; *Dairy and Farm*, Algona, Iowa, 1886-1887; *The Democrat and Dairyman*, Waterloo, Wisconsin, 1884-1905; *News and Dairyman*, Hartland, Wisconsin, 1893-1895; *Cheese and Dairy Journal*, Whitewater, Wisconsin, 1904-1906. These would appear, in most cases, to have floundered because of a farmer resistance to book farming. At least a shortage of subscribers seemed to be at the root of their troubles.

eals.²³ Because almost no specific items for dairying were being manufactured, the early dairy journals necessarily drew their advertising support from local firms until about 1879. In 1879 the first successful centrifugal cream separator appeared, and shortly many varieties of the device were being made.²⁴ Competition between manufacturers became intense. In a brief time advertisements for separators provided a reliable source of revenue for dairy periodicals. Even the most obscure and unlikely attempt at dairy journalism seemed able to secure at least one separator account. This fact explains, in part, why efforts before 1880 were subject to more abrupt failure than those after that date.

Another of the difficulties of the early dairy farm papers was that editors could not obtain much information to present to their readers. The *Dairyman's Record*, for example, apparently suffered most of all from a shortage of dairy material.²⁵ By the late 1880's this difficulty was being overcome. The Hatch Act of 1887 provided for state agricultural experiment stations. These stations began issuing reports on experiments. The elevation of the Department of Agriculture to cabinet rank in 1889 resulted in that agency turning out more material. These developments probably had much to do with the success of dairy journals founded in the 1880's. In addition, local or state dairymen's organizations, founded for the most part in the 1870's, also contributed necessary material.²⁶

Probably more fundamental to the success of dairy papers in the 1880's, was the greater amount of dairying which occurred in various sections of the country. Dairying increased in importance between 1860 and 1880. This fact has usually been obscured by the even greater expansion of the industry after 1880. Nevertheless, the increased amount of dairy farming between 1860 and 1880 in various places was unusual. Connecticut, for example, with 98,877 dairy cows in 1860 had 116,319 in 1880. The rate of increase in New York was not as great, going from 1,123,634 in 1860 to 1,437,855 in 1880.

In the newer dairy regions of Minnesota, Iowa and Wisconsin, however, the increase in dairying was most impressive. In 1860 Minnesota had 40,344 dairy cows, by 1870 this reached 121,467, and by 1880 amounted to 275,545. Iowa went from 189,802 dairy cattle in 1860 to 854,187 in 1880. Wisconsin showed an increase from 203,001 in 1860 to 478,374 in 1880.²⁷ The even greater advances of more recent years should not obscure the fact that these three western states either were, or were well on the way to becoming dairy states by 1880.²⁸ This development can hardly be traced to the influence of a weak or non-existent dairy press.

Although many dairy farm journals appeared before 1883, none of them lasted long. In three short years between 1883 and 1885, however, dairy journalism became permanently established. Six dairy papers were started between 1883 and 1885: *The Jersey Bulletin* of Indianapolis, *The Democrat and Dairyman* of Waterloo, Wis., the *Herd Register and Breeders' Journal* of Peterboro, N. H., *Hoard's Dairyman* of Fort Atkinson, Wis., *The Guernsey Breeders' Journal* of West Chester, Pa., and the *Farmer and Dairyman* of Portland, Oregon.²⁹ Of these, only *The Jersey Bulletin*

²³ *Dairy Farmer*, 2: front cover (June, 1861) for one example. But a survey of other early dairy journals indicates the same general condition for all.

²⁴ Fred Shannon, *The Farmer's Last Frontier* (New York, 1945), 137; *Farmer and Dairyman*, 2:8 (April, 1881).

²⁵ *Dairy Farmer*, 1:212 (November, 1860); 2:369 (May, 1862); 3:266 (February 1862).

²⁶ Shannon, *The Farmer's Last Frontier*, 277-278.

²⁷ U. S. Bureau of the Census, *Census Reports*, 12th Census, 5:704.

²⁸ As noted before, the exact cause of demise is not always clear. In the following instances, however, failure seems almost certainly to have resulted from a premature effort at dairy journalism: *New England Dairyman*, Poultney, Vermont, 1875 to possibly 1876; *Pacific Coast Dairyman*, Tacoma, Washington, 1895-1898; *Nebraska Dairyman and Up-to-Date Farmer*, Lincoln, Nebraska, 1899-1910; and some others which have been mentioned above.

²⁹ Stantz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910*.

and *Hoard's Dairyman* are still being published in 1957.³⁰ A review of the history of these two may give some indication of the qualities necessary for successful dairy journalism.

The *Jersey Bulletin* was begun at Indianapolis in October, 1883. Dennis H. Jenkins, owner and editor until 1911, began his weekly with only \$350. He had no knowledge of printing, little of writing, and only the most casual acquaintance with Jersey cattle.³¹ He had, however, noted that breed magazines had been fairly popular in the United States. He also recognized or assumed that Jersey breeders, mostly gentleman farmers, were able to support a periodical. His choice of a title was also significant. Very possibly something more than accident prompted him to pick a title which was similar to that of a recently defunct breeders' journal entitled the *Monthly Bulletin of the American Jersey Cattle Club*, popularly known as the "Jersey Bulletin." At least some of his enemies charged him with attempting to mislead Jersey breeders.³²

Jenkins initially charged \$2.00 a year for *The Jersey Bulletin*, and for several years hovered on the edge of insolvency because of a shortage of subscribers and advertisers. Nevertheless, by 1886 his journal had a circulation of 1,500 and by 1887 of over 3,000.³³ In 1885 he regularly carried two pages of advertising in each issue, which barely maintained the publication. But advertising patronage increased steadily, particularly for sales of cattle, and the journal weathered the storm.

In 1885 William D. Hoard established *Hoard's Dairyman* at Fort Atkinson, Wisconsin. Hoard had been publishing a country weekly, *The Jefferson County Union*, since 1870. In November, 1872, he began a special column for dairy topics. Evidence of reader interest led him to begin *Hoard's Dairyman* as a four-page supplement to the parent paper.³⁴ Hoard intended to publish the paper as an independent journal as soon as it was able to stand on its own feet.³⁵ At the end of 1885 *Hoard's Dairyman* claimed a subscription list of 700; in 1886 this had

doubled, and by 1889 the total circulation reached 6,000.³⁶ In this last year, Hoard made the journal fully independent of *The Jefferson County Union*.

In 1885 the Philadelphia Guernsey Breeders' Association began the *Guernsey Breeder's Journal*. This monthly, published at West Chester, consisted of 12 pages each issue, cost one dollar a year, and was in-

³⁰ Later, in 1910, another journal titled the *Guernsey Breeders' Journal* was begun at Peterboro, New Hampshire. It is still being published.

³¹ *The Jersey Bulletin*, 55:818 (July 1, 1930) also letter from Royer H. Brown (editor, *The Jersey Bulletin*) to A. W. Hopkins (Professor Emeritus, University of Wisconsin) dated April 15, 1952 and now on file at the Library of the Wisconsin State Historical Library.

³² Jenkins, for example, boasted that his subscribers included "men of ability in the great mercantile world . . . and form a list in which we may justly take pride." *The Jersey Bulletin* 4:12 (September 30, 1885); *The Monthly Bulletin of the American Jersey Cattle Club* was first published in Newport, Rhode Island in 1877 and ceased in 1881. See also letter from Brown to Hopkins, note 31 above.

³³ *Rowell's American Newspaper Directory*, 1886 and 1887.

³⁴ *Jefferson County Union*, 3 (November 15, 1872); *Hoard's Dairyman*, 16 (March 13, 1885); Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During the Century July 1810 to July 1910* [An Autobiographical Letter, letter from W. D. Hoard to Charles A. Stringer, sometime in 1916, published in the Madison County (N. Y.) *Leader*, and later in *The Jefferson County Union*; Ben Walker, "Brief Review of the History and Important Work and Influence of *Hoard's Dairyman*," (Unpublished manuscript, prepared in 1931) 2, a copy is on file at the office of *Hoard's Dairyman* in Fort Atkinson, Wisconsin.

³⁵ *Hoard's Dairyman*, 16 (April 3, 1885); the high volume number is a result of the fact that Hoard merely transferred the volume number from his *Jefferson County Union* to the *Dairyman*.

³⁶ Figures supplied in 1951 by W. D. Knox, editor, *Hoard's Dairyman*. In 1884 the *Democrat and Dairyman* was founded at Waterloo, Wisconsin. In 1905 the word "Dairyman" was dropped. Both the New Hampshire and Wisconsin ventures suggest the locations of the newer dairy regions of the time. In 1885 the *Farmer and Dairyman* was begun at Portland, Oregon. The journal died in 1887. Some farmers in the region were dairymen, but obviously the Far West was not ready for a dairy journal. Perhaps, to, the editor did not have the support of a country weekly.

tended for farmers as well as breeders.³⁷ Since the journal failed in 1887, its history may form an interesting comparison to *The Jersey Bulletin* and *Hoard's Dairyman*.

When the members of the Philadelphia Association began their journal, they asked Willis P. Hazard to edit it. At the end of the first year in 1886 Hazard resigned as editor, and this loss of an editor seems to have been the chief cause for the decline and end of the *Guernsey Breeders' Journal*. The paper was revived briefly in 1886, but the new editor died shortly, and the journal was discontinued in 1887.³⁸ Successful publication required the leadership of an energetic editor, and the loss of Hazard was something more than the loss of a titular functionary. He had breathed life into the journal. When he left, no one of similar talents was found to replace him.

What sort of subject matter and editorial approach was required of a successful dairy farm periodical? Some comparisons may be revealing. Although the editors of *The Jersey Bulletin*, the *Guernsey Breeders' Journal* and *Hoard's Dairyman* experienced different financial problems, and had different specific objectives, their main editorial programs were the same. All the journals detailed various methods of manufacturing dairy products, for example. Even the breed journals carried information on cheese and buttermaking, although not as much or as often as farm journals like *Hoard's*.³⁹

All editors were united in opposition to the manufacture and sale of oleomargarine. The substitute was considered a fraud. It was said to be dangerous and unhealthy as well. Hoard summed up their sentiments when he observed in 1885:

The butterine men claim to be benefactors of the poor man in furnishing him a wholesome, nutritious and cheap substitute for butter. As a matter of fact they furnish him a cheaply made imitation which is fraudulently sold to him as genuine, and at the price of genuine dairy, or creamery butter, and which in its composition may and often does, contain ingredients wholly unfit to be taken into the human stomach.⁴⁰

The editors of the three journals did not agree on a program of oleomargarine sup-

pression, but they all opposed the sale and use of the product. The *Guernsey Breeders' Journal* did not take a firm stand on what should be done. This may be evidence of an inability to sense those popular campaigns which were necessary for increasing subscriptions and prolonging life.⁴¹

All editors were interested in improving the dairy cattle used on the farm. Hoard and Jenkins agreed that the greatest problem was to get the farmers to accept the single purpose dairy cow. They insisted that the search for a dual purpose cow merely led to the degeneration of cattle.⁴² Hazard, in contrast, declared that the Guernsey was a dual purpose cow. In 1885 he wrote:

Here we may say that it is deemed high time that the merits of the Guernsey as a dairy breed, and also, as realizing as near as possible, the "general purpose" breed, were made more generally known.⁴³

But Hazard did not press his claim very hard.

The editors of these early breed journals did not often quarrel with one another. *The Jersey Bulletin* and the *Guernsey*

³⁷ *Guernsey Breeders' Journal*, 1:4 (January, 1885); also letter from L. R. Lounsbury (Managing editor of the *Guernsey Breeders' Journal*) to Andrew W. Hopkins, dated November 8, 1951, and now on file at the Library of the Wisconsin State Historical Society.

³⁸ *Guernsey Breeders' Journal*, 84:779-780 (March 15, 1952); this article is on the history of the journal.

³⁹ *Hoard's Dairyman*, 16:1, 3 (November 27, 1885).

⁴⁰ *Ibid.*, 16:1 (March 13, 1885); Jenkins best expressed his attitude on color and oleomargarine when he wrote in 1899: "A law prohibiting the use of butter color would not hurt the sale of good butter, but would make it necessary for poor butter and oleomargarine to be sold for what they are" *The Jersey Bulletin*, 18:471 (June 7, 1899). On oleomargarine and butter color see also *Hoard's Dairyman*, 16 (April 3, 1885); *The Jersey Bulletin*, 4:166 (December 2, 1885).

⁴¹ *Guernsey Breeders' Journal*, 1:23 (April, 1885); 84:780 (March 15, 1952); also negative evidence based on a review of many issues of the journal.

⁴² *The Jersey Bulletin*, 4:158 (December 2, 1885); *Hoard's Dairyman*, 16:1, *passim* (November 6, 1885).

⁴³ *Guernsey Breeders' Journal*, 1:4 (January, 1885).

Breeders' Journal attacked Ayrshires, rather than one another.⁴⁴ In this period Hoard probably influenced more farmers than did the breed journals. In the first place, *Hoard's Dairymen* reached more real farmers, and in the second place, the editor concentrated his attack on the more prevalent scrubs and Shorthorns.⁴⁵

The editors, of course thought of themselves as teachers, and indeed, had little other excuse for being. But at the same time, the journalists had to be careful not to leave the impression that they were in fact teaching.⁴⁶ One farmer warned the editors in general, and Jenkins in particular: "I will make one guess, however, and that is, intelligent farmers will be inclined to drop papers that continually throw at them the accusation of ignorance . . ."⁴⁷ Jenkins accepted the observation and insisted that his periodical was a bulletin board for correspondents, and nothing else.⁴⁸ Although the editors felt they had a mission to improve American dairying, it was obviously a limited call. Unlike the prophets of old, the editors had to temper their voices when speaking to farmers. Even the forceful Hoard tactfully used the words "advise" and "suggest," and spoke of "sensible farmers" being "slow in learning."⁴⁹

The editors of the three journals all reached the same over-all conclusion: their important objective was to get farmers to achieve a level of profitable dairying. This goal was to be reached primarily by efficient methods, but also by careful adherence to conservative 19th century economic theory. For the editors, all economic problems could be solved by better and higher production, accompanied by wise seasonal marketing. They did not propose any form of socialism, neither did they suggest government assistance for farmers in maintaining prices. Except for Hoard, they did not even speak clearly on the subject of farmer cooperation. Each farmer was an economic entity and was to do his best under those circumstances.⁵⁰

Why just two journals should have endured cannot be answered definitely. Obviously, the papers filled a need, but just

as importantly the editors had something to say; something which they thought was highly important.⁵¹ The failure of the *Guernsey Breeders' Journal* after Hazard resigned as editor strongly suggests that personal enthusiasm was important for the success of a journal at this time.

Editorial energy subsequently turned into a belligerency which became more pronounced as time went on. Between 1883 and 1885, Jenkins, always a Jersey partisan, disagreed with Hoard on the use of artificial butter coloring. Jenkins opposed the use of any artificial additions. Then in the 1890's Jenkins denied that the tuberculin test was effective. He opposed the slaughter of cattle judged tubercular

⁴⁴ *Ibid.* 1:80 (August, 1885); *The Jersey Bulletin*, 4:161 (December 2, 1885); *Guernsey Breeders' Journal*, 1:81 (August 1885).

⁴⁵ *Hoard's Dairymen*, 16 (May 22, 1885).

⁴⁶ *Guernsey Breeders' Journal*, 1:11 (February, 1885).

⁴⁷ *The Jersey Bulletin*, 4:14 (November 1, 1885).

⁴⁸ *The Jersey Bulletin*, 55:818 (July 1, 1936); 4:14 (November 1, 1885); see also letter, Brown to Hopkins, cited in footnote 31.

⁴⁹ *Hoard's Dairymen*, 16:1 (December 4, 1885).

⁵⁰ See, for example: *Hoard's Dairymen*, 16 (May 22, 1885); *The Jersey Bulletin*, 4:157 (December 2, 1885); *Guernsey Breeders' Journal*, 1:157 (April, 1885).

⁵¹ Weak or confused editorial policy was conspicuous in a few of the unsuccessful journals. Usually this sort of editorial shortcoming seems to have appeared in those journals which attempted to provide information for different special interests. For example, the *Stock and Dairy Gazette* of Sibley, Iowa, or more clearly the *Creamery and Dairy* of Waterloo, Iowa. *The Dairy Farmer* of Little Falls, N. Y., had almost no editorial policy, but this does not seem to have been an important cause for its end. *Blooded Stock* of Londonderry and Oxford, Pennsylvania, published between 1895 and 1913 drifted from one emphasis to another and the several editors never squarely decided if they were publishing a dairy journal or not. *The Western Farmer and Dairymen*, published at Mankato, Minnesota, from 1905 to 1906 supported both diversified farming and dairying as a specialty. This ambivalence presented problems to the editor, and the resulting confusion may well have accounted for the death of the journal. Other magazines exhibited varying degrees of editorial uncertainty which undoubtedly contributed to their failure.

by the test.⁵² He also argued that the Babcock test was not a valid butter test. These positions were directly opposite to those taken by Hoard on the same issues.

The disagreements changed to outright, if sporadic, quarreling in the years between 1890 and 1910. Verbal antagonism increased between the two editors as technical innovations appeared. Jenkins made his position fairly clear. He opposed anything which did not tend directly to the glory of his Jerseys. In contrast, Hoard supported every innovation which might benefit the dairy farmer. But the two protagonists, in choosing their separate paths, seemed to have developed editorial positions which suited their respective subscribers.

Whatever the topic, Jenkins directed discussion toward the virtues of Jersey cattle, their owners, and his journal. In January, 1899, for example, Jenkins stated, apropos a feud with Hoard: "Our remarks are all made in defense of the Jersey cow and THE JERSEY BULLETIN, and without malice."⁵³ Jenkins went on to admit, in effect, that he feared the Babcock test would in some way diminish the fame of Jersey cattle. His opposition to creameries, separators, and the tuberculin test all stemmed from the same fear.

Toward the end of his editorship Jenkins lost some of his vigor and sense of editorial balance. Articles increasingly centered on descriptions of herds and individual cattle. So much so that the Third Assistant Postmaster threatened the journal with a revocation of second class mailing permit if the amount of textual advertising was not decreased. Jenkins grudgingly complied.⁵⁴

Jenkins sold the paper in 1911 to Royer H. Brown who at first edited it and then employed others to edit it. After 1911 *The Jersey Bulletin* continued to be a source of information for dairymen as well as breeders, but the former editorial enthusiasm largely disappeared. *The Bulletin* was no longer first on the spot with a contrary opinion as it had been under Jenkins. But for all the flaws, *The Jersey Bulletin* was one of the few journals to maintain a

distinctive quality in its editorials. The publisher had apparently discovered a formula for continued existence in the newer era of factory publishing and hired managerial editors.

Hoard's Dairymen over the years was extensively quoted in other journals. This suggests the possibility of a wide influence throughout the industry. The influence of *Hoard's Dairymen* is perhaps revealed by the programs which the journal supported and which were eventually adopted by farmers or legislators. These same programs may also be considered a part of the formula for success which worked at least for *Hoard's*. The *Dairymen* found support for its position in favor of artificial coloring, oleomargarine legislation, single purpose cattle, and the greater use of alfalfa and silos. These victories were won in consort with other papers.

Hoard's Dairymen also inaugurated and saw the successful conclusion of a campaign against bovine tuberculosis. And this was accomplished in the face of farmer resistance, and for the first decade, journalistic obstruction. The one significant defeat for *Hoard's* was the continual refusal of farmers to test their cattle to determine productivity of individual animals. Another defeat, indicative of the times, was the repeal of the federal oleomargarine tax in 1950. On most matters affecting farmers, Hoard seems to have taken either the potentially or actually popular position. The one possible exception was his attitude toward tuberculosis eradication. His program here, however, was about the same as that of the urban press.

Until late in the 1920's, *Hoard's Dairymen* depended on comments from readers for most of its material. From 1885 to around 1900, most dairy information came from farmers. After about 1900, when

⁵² *The Jersey Bulletin*, 18:851 (October 3, 1899); 18:488 (June 14, 1899); 18:471 (June 7, 1899); 18:30 (January 11, 1899).

⁵³ *The Jersey Bulletin*, 18:30 (January 11, 1899).

⁵⁴ *The Jersey Bulletin*, 30:1348 (August 23, 1911).

the work and publications of experiment stations increased significantly, the information contained in these bulletins was usually passed along as answers to questions sent in by readers. As late as 1915, much of the material in the journal was presented in the form of answers to questions. During the 1920's, under the editorship of A. J. Glover, the policy of the journal was gradually changed until by 1930 letters from readers were mostly confined to columns set aside for correspondence. By 1937 *Hoard's Dairyman* depended primarily on articles by professional writers. The era of the farmer and professor contributor had just about come to an end.⁵⁵ As it changed, *Hoard's*, like *The Jersey Bulletin*, found a formula which suited its readers. Both were successful dairy farm journals although they exhibited rather pronounced dissimilarities.

But they were also alike in many respects. In these similarities may be found the elements necessary for successful dairy

journalism. They both had a large potential audience. They carried on campaigns on vital issues. In these campaigns they presented facts, news, and editorial exhortations on certain issues over extended periods of time.⁵⁶ Both journals seem to have been run by competent businessmen, and both were directed by their editors so that, consciously or not, their viewpoints were adapted to that of their readers. Both changed in style and approach as the fashions in journalism changed. Both kept abreast the currents of the time. This above all seems to have been the essential element in their success.

⁵⁵ See issues of the journals for the relevant years.

⁵⁶ Jenkins, for example, opposed the use of artificial coloring in butter and oleomargarine from 1883 to 1911. His campaign against the Babcock test ran from 1891 to around 1899. Hoard and Glover campaigned against bovine tuberculosis from 1891 to the 1940's, and in the 1940's *Hoard's* took up battle against brucellosis.

COWBOYS SOMETIMES GOT PETRIFIED, TOO

H. Clay Emmet, a young cowboy from Belton, Texas, reports a singular find made by him during a cattle hunting roundup in the panhandle country recently. The find was nothing more or less than a petrified pony, standing erect and complete in all parts. Emmet says that he and his partner, B. C. Woodville, were riding across the prairie late one afternoon, when their tired ponies neighed and whinnied as if they were aware of the presence of another animal. Looking around, they discovered what they thought was a broncho tethered to a mesquite which crowned the summit of a little knoll to the northward. They rode up to the spot and found that the horse was fastened by a chain, but stood so rigidly still and seemed altogether so mysterious that their own horses reared and plunged as if in fright. Finally they dismounted and found that the pony was petrified, not a hair or hoof amiss. Emmet says that some ranchman years ago must have chained the poor horse there, leaving it to starve on the plains. As the ribs of the animal were plainly visible in the petrifaction and it seemed to have been otherwise much emaciated, this is most probably the case. Emmet will arrange to have the strange find exhibited in some museum. It frequently happens that horses fall into the habit of going to sleep while standing and it must have been under these circumstances that the panhandle broncho departed this life to join the great majority. —*Field and Farm*, Denver, September 5, 1896.

The Development of the Capper Farm Press

HOMER E. SOCOLOFSKY

The political career of Arthur Capper, of Kansas, was well-grounded in the field of journalism, as printer, reporter, editor, and publisher. By the time of his death, in 1951, his material assets, all in the fields of communication media, placed him in the class of a multi-millionaire. That part of his publishing empire which gave him the most recognition, outside his native state of Kansas, was the publication of his farm journals. After the mid-1920's, these publications were *Capper's Farmer*, a monthly farm journal circulated widely in the region from Ohio to North Dakota to Texas, and five state farm papers serving the states of Kansas, Missouri, Ohio, Pennsylvania, and Michigan. Collectively they were known as the Capper Farm Press.

The entrance of Arthur Capper into the field of farm publications came with his acquisition of the eight-year-old *Missouri Valley Farmer* in April, 1900.¹ In spite of the large number of agricultural publications competing for the growing farm market of the period, this was an opportune time for Capper to enter a new phase of a field which had held his primary interest for almost 20 years. Fresh out of high school in 1884, he landed a printer's job on the Topeka *Daily Capital*. In September, 1893, just before the most serious part of the Panic, he was established as the owner and editor of a growing Topeka weekly, *The Mail*, which by 1900 possessed the largest circulation of any newspaper in the state.

Developments which greatly aided the cause of journalism in the late 1890's included new improved presses, better links with the news agencies and governmental agencies such as the Department of Agriculture, and the development of rural free delivery. Rural free delivery, by itself, opened a huge new market to the agricultural press.²

The increase in number of publications in the Capper press was haphazard and unplanned. Capper's work on his first

paper brought compliments from all over the state and he became one of the conspicuous successes in Kansas journalism. It was comparatively easy to become a newspaper proprietor in that period. Equipment was relatively inexpensive and small papers could be started and discontinued almost at will. The owner of a paper about to give up the struggle could sell his mailing-list and the "good-will" of his paper and thereby escape the legal necessity of repaying subscribers for unexpired subscriptions. Many newspaper consolidations were made in this manner,³ and Capper frequently benefited from such transactions. He maintained, years later, that he was asked to buy all his papers except one; that exception was presumably his first paper.⁴ Thus, in 1895, when Thomas A. McNeal approached Capper with an offer to sell his *Kansas Breeze*, Capper bought it, consolidated it with his own paper as the *Mail and Breeze*, and employed McNeal as editor.⁵

¹ Kansas State Historical Society, *History of Kansas Newspapers* (Topeka, 1916), 143, 291, lists the date of first publication of *Missouri Valley Farmer* as January 4, 1893. Stephen Conrad Stuntz, compiler and Emma B. Hawks, editor, *List of the Agricultural Periodicals of the United States and Canada Published during the Century July 1810 to July 1910* (Washington, 1941), 104, cites 1892 as the date of establishment of the journal. On the other hand, *Missouri Valley Farmer*, August, 1910, as well as many other issues, states in its masthead, "est. 1891," and *Capper's Farmer* now uses 1879 as its date of establishment.

² Liberty Hyde Bailey, ed., *Cyclopedia of American Agriculture* (3rd ed., New York, 1910) 4:314. The first R.F.D. was in 1896. By 1908 there were 40,000 carriers.

⁸ Frank Luther Mott, *American Journalism* (Rev. ed., New York, 1950), 275; Gilbert M. Tucker, *American Agricultural Periodicals* (Albany, New York, 1909), 76.

⁴ Interview with F. D. Farrell, former president of Kansas State College, July 10, 1951.

⁵ A clipping from the *Brown Country World*, n.d., in the Biographical Scrapbook, Kansas State Historical Society, C: 1, says Cupper paid \$2,500 for the *Kansas Breeze*.



Kansas Hist. Soc.

Arthur Capper

Capper's purchase, in 1900, of the *Missouri Valley Farmer*, a run-down agricultural monthly with 16,000 subscribers, was a result of a similar offer from an owner seeking relief. This sale brought an increased stress in Capper publications on agricultural matters. In its first issue under Capper ownership the *Missouri Valley Farmer* displayed newly created departments which offered greater appeal to farm folks.⁸ An intensive drive for increased circulation brought promising results and claims of more than 100,000 subscribers were made by 1902.

The Capper formula for success in a newspaper enterprise was nothing more than to follow the dictates of good newspaper practice. He had long years of newspaper experience before he owned his own paper. He consistently worked to improve his publications to attract increased circulation. He wanted his papers to provide a good media for the display of advertising matter and he had unusually good success in attracting advertising. Furthermore, he had a knack for instilling

personal loyalty in employees and for making a paper pay, and these qualities gave promise of an increase in the number of periodicals which he published.⁹

The local success enjoyed by Capper caused the Bank of Topeka, in 1901, to offer him the debt-ridden *Daily Capital*. Having insufficient resources of his own, Capper organized a short-term partnership for the new venture.¹⁰ As the principal owner of the Topeka *Daily Capital* and its weekly paper, the *Kansas Capital*, Capper's field of operations now included a daily newspaper, a farm monthly and two weekly newspapers. When advertisers questioned the advisability of buying space in two papers such as the *Mail and Breeze* and the *Kansas Capital*, which seemed so much alike, Capper assured them that his papers "don't compete."¹¹ Apparently under this pressure he felt it necessary to make sure that his papers would not compete.

The evolution of the *Mail and Breeze* in the direction of a strictly agricultural publication was noticeable but much of the development was without plan.¹² It still served much the same area and the same subscribers of earlier times but attention was directed more completely to the farmer and his interests. By October 1, 1904, an acknowledgment of the change was apparent, for the *Mail and Breeze* was subtitled "An Agricultural and Family Journal for the People of the Great West."¹³

⁸ *Missouri Valley Farmer*, May, 1900.

⁹ Eventually a Capper "Old Timers" Club, of employees with 25 or more years of service, was formed.

¹⁰ The contract for the purchase of the *Capital* is in the vault of Capper Publications, Inc., in Topeka. Capper obtained majority control of the new enterprise with the minority shares held by four others. The partnership was dissolved in 1904. This purchase set no precedent for future Capper purchases, as each transaction was an individual matter.

¹¹ Interview with Marco Morrow, long time assistant publisher for Capper Publications, August 1, 1952.

¹² *Mail and Breeze*, April 12, 1901; July 5, 1901; September 5, 1902; January 23, 1903; and March 20, 1903.

¹³ *Ibid.*, October 1, 1904.

As a farm paper, the *Mail and Breeze* was completely departmentalized so that no member of the farm family could look at a single issue without finding something that would provide interest. Farmers and farm women who had been successful in a particular line were the new editors of specialized departments. One of the long-time features was the editorial page under the guidance of Tom McNeal until his death in 1942. The paper had its primary circulation in Kansas, Oklahoma, Indian Territory, Nebraska and Missouri. Frequently a single issue ran to 40 pages in length and had circulation claims of more than 60,000. A conscious promotion of the value of advertising was made each week by the publication of one or more voluntary letters from satisfied advertisers. But because national advertisers were unaware of the new character of the paper, its name was changed early in 1906 to the *Farmers Mail and Breeze*.¹²

Thus Capper exhibited a characteristic opportunism which he displayed on many occasions. He preferred to change according to the needs of a developing situation, not in accordance with some inflexible long-range objective. Politically conservative in many ways, where agriculture was concerned he often endorsed liberal policies. Though his personal morals were above reproach, the advertising standards of his publications were frequently criticized. But opportunism rather than irresolution marked his course of action.

With two agricultural papers, the *Missouri Valley Farmer* and the *Farmers Mail and Breeze*, the foundation for a multi-state Capper farm press had been laid. Capper may have visualized such a future organization, for it was his nature to acquaint himself with activity in the publication field. He must have known of other combinations of agricultural periodicals, such as the joint handling of the *American Agriculturist*, *New England Homestead*, and *Orange Judd Farmer*, but he particularly watched the activities of Pierce's Farm Weeklies of Iowa, Wisconsin, and Missouri.¹³

The idea of a specialized farm paper

for a single state evolved over the years. Because of the nature of their audience and their subject matter, agricultural periodicals tended, more and more, to confine themselves to a restricted geographical area. Moreover, *Farmers Mail and Breeze* differed from many farm periodicals. Few weekly farm papers were owned by men who also published a monthly farm journal. The origin of the paper was also different from most agricultural papers which had always been published specifically for farm people.¹⁴

By 1906, Capper had established himself solidly as a Kansas publisher. In spite of the growth of his business, the circulation of his publications was confined primarily to Kansas, except for the monthly *Missouri Valley Farmer* and a women's magazine which he had published for several years.

In April, 1908, Capper added *Poultry Culture*, the official organ of the Kansas State Poultry Association, to his list. This journal was published in the interests of

¹² *Farmers Mail and Breeze*, February 17, 1906; Interview with Marco Morrow, August 1, 1952. Morrow, then in the agricultural advertising business, did not hear of the change in the character of the *Mail and Breeze* until 1905, when he made a business trip to Salina, Kansas.

¹³ Interviews with Marco Morrow, November 28, 1952 and April 7, 1953. Capper was reticent in talking of himself and his future. It was not his nature in the development of a multi-paper farm organization to be conscious of following any particular trend and Morrow states that he had no real innovations to offer in the field of agricultural publications. Other successful farm-paper publishers had done what he was doing. Morrow is inclined to believe that the idea for the Capper Farmer Press came from the farm papers headed by *Orange Judd Farmer* and including *Northwest Homestead* and *Southern Farming* by 1914. Pierce's papers were the *Iowa Homestead*, *Wisconsin Farmer* and the *Farmer and Stockman* of Kansas City and St. Louis. When changes were suggested for one of his farm papers, Capper seemed prone to ask, "How is it done on the Pierce Farm Weeklies?" These combinations appear as exceptions to the usual farm paper organizations which were generally small and independent of all other farm papers.

¹⁴ *History of Kansas Newspapers*, 290-291. *Farmers' Advocate*, published in Topeka, had an origin similar to *Farmers Mail and Breeze*, but *Kansas Farmer* had always been published as a farm paper.

the specialized poultry raiser and as such was different from the usual Capper paper which attempted to satisfy wider, more general interests. Probably because of these characteristics, *Poultry Culture* was sold in 1916.¹⁵

The growth and prosperity of the Capper businesses resulted in demands for working space that far exceeded the area then available. Capper offices were scattered all over down-town Topeka. Plans were formulated in 1906 and 1907 to erect a new five-story building in Topeka, just across the street from the State House grounds. Late in 1908, all Capper offices, presses, and other equipment were installed in Capper Publications' new home.

During 1908, *Farmers Mail and Breeze* exceeded 100,000 circulation, the fourth farm weekly to do so. *Missouri Valley Farmer* was delivered to twice as many subscribers. Capper went outside his organization where he employed almost 400 persons to obtain key men to direct the advertising and circulation departments of his business. He had previously conducted these departments with the help of clerks. His printing and editorial departments were already under competent employees. One of the first outsiders was Marco Morrow, who had worked nine years for a Chicago agency which concentrated on agricultural advertising. He became director of advertising.¹⁶ The circulation department also was headed by a man experienced in the field. Capper was cautious in bringing newcomers to his organization because he had never paid anyone salaries as high as the amount he offered Morrow. But he was already buying other papers and he wanted a strong organization to handle the increasing responsibilities.

Capper was apparently not anxious to acquire new journals. But he was willing to listen to offers of periodicals for sale and many came under Capper ownership through the proposal on the part of the seller or some third party, who was not necessarily involved in the sale. In no case did Capper establish a new publication. All of his papers had originally been published by someone else and in most cases

were doing poorly when they were transferred to Capper. With his characteristic opportunism and energy, he wanted to be in a position to succeed in his new enterprises.

In expanding his publishing business, Capper limited himself to journals primarily with a Kansas circulation until August, 1908, when he bought the *Nebraska Farm Journal* from W. T. Laing. Laing had been struggling to keep his paper going, so he sold it to Capper and got a job with Capper Publications.¹⁷

Capper also invaded the field of Missouri agricultural journalism. The initiative for this purchase was probably taken by Colonel Ed R. Dorsey, of Topeka, for a letter, dated June 4, 1910, from W. E. Hurlbut of *The Ruralist*, to Dorsey, enclosed a complete inventory and an offer to sell the paper, its supplies and earned accounts for \$10,000.¹⁸ Since Capper purchased *The Ruralist*, which he quickly dubbed the *Missouri Ruralist*, before the end of June, this letter presumably played a part in the negotiations.¹⁹ *Breeder's Special*, of Kansas City, Missouri, was purchased on August 16, 1910, and consolidated with *Missouri Ruralist* with the December 10, 1910, issue.²⁰

In 1912, the purchase of the *Oklahoma Farmer* gave Capper a farm journal spe-

¹⁵ Interview with Leland Schenck, production manager of Capper Publications, April 7, 1953.

¹⁶ Interviews with Marco Morrow, November 28, 1952 and April 7, 1953. Morrow came to Topeka on what he thought was a temporary arrangement, but continued in Capper's employ until his retirement in 1941, 33 years later.

¹⁷ N. W. Ayer and Sons, *Directory of Newspapers and Periodicals, 1909* (Philadelphia, 1909), next to page 1233; Interview with Marco Morrow, April 7, 1953.

¹⁸ This letter is in the Capper file at Kansas State Historical Society in Topeka.

¹⁹ *Missouri Ruralist*, August 20, 1910. Capper's name did not appear on the masthead until the issue of August 20, 1910, but the earliest letter of congratulations in the issue, dated June 23, 1910, from President Henry J. Waters, of Kansas State Agricultural College, and former Dean of the College of Agriculture, University of Missouri, indicates that the purchase had been completed in June.

²⁰ *Ibid.*, December 10, 1910.

eifically for that State. The contract was made March 28, 1912, between M. L. Crowther, a former Capper employee, and the Farmer Publishing Company of Guthrie, Oklahoma. Crowther paid \$1,000 in cash and gave a note for \$2,000. He later transferred the note to Capper and became manager of the paper at a salary of \$30 per week and one-fourth of the new annual profits of the publication.²¹ While this arrangement was not typical and apparently has no parallel elsewhere in the Capper system, Capper accepted it.

Soon after his invasion of Oklahoma, Capper set about to consolidate with other papers as he had done in Missouri. Within a month the subscription list, advertising contracts and good will of the *Oklahoma State Farmer* were purchased and incorporated into the new property.²² Late in 1915, another consolidation was made with the purchase of the *Oklahoma Farm Journal* for \$24,000, a price which included some equipment.²³

By 1912, Capper had farm periodicals circulating specifically for the states of Nebraska, Missouri, Oklahoma, and Kansas, where each had competition from other state farm publications. All of the Capper papers were printed in Topeka, but Capper seemed sincerely interested in identifying each paper with the state of its major circulation. Typical of Capper's statements upon acquiring a new publication was the one printed in *Missouri Ruralist* that the paper would be "Missouri from the start to finish, a livestock and farm journal that the Missouri feeders and farmers will be proud of."²⁴ The editors of many of the papers purchased by Capper became Capper employees. Editorial and business offices were maintained in Omaha, Kansas City, Oklahoma City, and Topeka, respectively.²⁵

Within several weeks after Capper's entry into a new state as publisher of a farm journal, a complete list of department editors and editorial contributors, mostly representing the state where the paper was published, would be announced in the columns of the paper. Capper's circulation department would also transfer

agents to the area of the new publication and launch subscription drives. With increased circulation the advertising rates would rise. In the advertising world the name of the Capper Farm Press was becoming well-known and it eventually became a part of the sub-title of each paper, but it was an advertising name and was used less frequently in an editorial and business way. Nonetheless, the casual reader of a Capper farm paper came to realize that his paper was a member of a multiple-state farm paper syndicate.

The ingredient which Capper added to these papers to make them successful apparently was nothing more than skillful operation and good newspaper practice. He had more newspaper experience than the average farm publisher. The joint operation of printing, advertising, and business departments permitted certain economies. He also had an ability to build circulation. His circulation department was able to offer a state farm paper and could also sell a monthly farm journal, a home magazine and a daily and weekly newspaper at reduced cost. From that point it was an easy matter to expand operations into other states and still maintain centralized management of most of the departments of the entire Capper publications.

Since he held that "no newspaper can achieve permanent success except by sheer

²¹ The contract and bill of sale transferring *Oklahoma Farmer* to M. L. Crowther with the acceptance by Capper is in the vault at the Capper Building, Topeka. As far as can be determined, the price of the *Oklahoma Farmer* was never considered unreasonable by Capper. Only the name and subscription list were purchased.

²² *Oklahoma Farmer*, May 1, 1912. There is apparently no record of the price of the *State Farmer*. Generally, purchases by Capper in this period were of papers in distress and there were usually no contenders around who also wanted the paper.

²³ *Ibid.*, November 23, 1915; Letter from C. E. Carpenter, Cashier, Farmers National Bank, Oklahoma City, to Capper, December 8, 1915. This letter is in the vault at the Capper Building.

²⁴ *Missouri Ruralist*, September 17, 1910.

²⁵ The editorial office of the *Missouri Ruralist* was moved from Kansas City to St. Louis in 1914.

merit", Capper developed a carefully observed editorial policy, in line with many other farm publishers, of presenting all technical information with complete accuracy.²⁰ His papers also worked closely with the agricultural colleges and the United States Department of Agriculture. Pictures soon came to play a prominent part in each article by showing "how to do it" and the story would follow that pattern. Technical information, in order to serve a useful purpose under the editorial policy of the Capper Farm Press, had to be confirmed by actual farm practice.²¹

The editorial departments of the Capper Farm Press were in capable hands. Capper claimed, as early as 1908, that a larger share of the gross income was spent on the editorial department than was usual in the case of farm papers.²² By 1920, most of the editors of regular columns were specialists in their chosen subject. The enthusiasm Capper had for his business and his employees was often conveyed by the editors to the readers of the Capper papers. Of major importance was Capper's "editorial instinct," no doubt the result of long years of experience, which told him what farm people wanted in their paper. His recipe for a good farm paper was to "fill its pages with practical boiled down facts" a little in advance of the time "they would be needed," and he prided himself in giving his readers what they wanted.²³

From 1912 on Capper became more and more engrossed in politics. He narrowly lost in the race for Governor of Kansas that year, but was elected and re-elected in 1914 and 1916. In 1919 he began the first of five consecutive terms in the United States Senate. A few trusted employees were then given the responsibility for directing his business, but he still maintained control over all major decisions.

Shortly after Capper's elevation to the Senate in 1919, the name of the *Missouri Valley Farmer* was changed to *Capper's Farmer*.²⁴ The announced reason for the

change was that "its circulation has not been confined to the valley of the Missouri River nor has the paper editorially limited itself to the peculiar farm problems of the Missouri Valley; hence it is apparent that we should not retain a name local in character."²⁵

Another change in 1919 resulted from the purchase of the old-time *Kansas Farmer* and its consolidation with the *Farmers Mail and Breeze*.²⁶ Thus Capper's old-time *Mail and Breeze* became the only state farm paper in Kansas. Consolidations had been achieved elsewhere but Capper's state farm papers for Nebraska, Missouri, and Oklahoma still had energetic competitors.

During 1919 and the first half of 1920, there were general expectations that the removal of restrictions on consumption imposed by the war would result in an enormous demand for American farm goods and products.²⁷ In accordance with this agricultural optimism the Capper organization enlarged its Topeka building, increased circulation and set about improving the format and reading matter of the various farm papers. In order to finance this expansion, subscribers were offered the opportunity to invest in Capper Publications by means of unsecured

²⁰ Arthur Capper, *The Capper House Book, A Statement of the Policies and Aims of the Capper Publications* (Topeka, Kansas), n.d., 13; Interview with Nelson A. Crawford, June 17, 1952. Crawford was former editor of the Capper Publications' women's magazine, *Household*.

²¹ Interview with Raymond Gilkeson, editor of *Kansas Farmer*, July 11, 1952.

²² Letter from Capper to A. L. Lawshe, December 19, 1908. Copy in Capper file.

²³ *Missouri Valley Farmer*, April, 1909.

²⁴ The change was made April 21, 1919, according to "First Things," a manuscript copy of changes around Capper Publications. The first issue under the new name was June, 1919.

²⁵ *Capper's Farmer*, June, 1919.

²⁶ *Kansas Farmer and Mail and Breeze*, December 13, 1919. The whole staff of the *Kansas Farmer* was employed in the Capper organization.

²⁷ Chester C. Davis, "The Development of Agricultural Policy Since the End of the World War," *Farmers in a Changing World; Yearbook of Agriculture, 1940* (Washington, 1940), 298.

demand notes which were called Capper Certificates.³⁴

In September, 1920, a Denver, Colorado, farm periodical, *Field and Farm*, was added to the Capper list.³⁵ Business and editorial arrangements followed the usual Capper formula. A 35 per cent drop in the market price of wheat in the next three months so alarmed Capper over possible injury to his business that he ordered a retrenchment in operations which resulted in the *Kansas Farmer and Mail and Breeze* absorbing the subscription list of *Field and Farm* and the abandonment of the Colorado paper.³⁶

Retrenchment in Missouri resulted in the purchase of the old *Journal of Agriculture* of St. Louis for \$86,000.³⁷ For this sum Capper obtained a farm paper with the largest circulation in Missouri, a building and printing plant in St. Louis and the elimination of all state farm competitors in Missouri. For the next decade all mechanical work for the Missouri paper was done in St. Louis, where all of the *Missouri Ruralist* editorial, advertising, and circulation departments were located.³⁸

Capper expanded far outside his home area in 1922 with the purchase of majority control in the Lawrence Publishing Company of Cleveland, Ohio, publishers of the *Ohio Farmer*, *Pennsylvania Farmer* and *Michigan Farmer*.³⁹ In assuming control, Capper promised to continue existing policies of the various papers just as he had done with previous purchases. While these papers worked in close harmony with other Capper farm papers, they did not immediately become part of the Capper Farm Press. It seemed important to Capper that subscribers of these Eastern periodicals should not think their papers were coming out of Topeka so printing was always centered in Cleveland, and the officers, as appointed by Capper, made their headquarters there.⁴⁰

Before his purchase of these Eastern farm papers Capper seemed to have no plan for acquiring additional state farm papers. But after 1922 he began to discuss

future expansion plans with his staff and considerable time was spent investigating farm papers in Indiana, New York, Florida

³⁴ *Kansas Farmer and Mail and Breeze*, July 31, 1920. By 1937 the aggregate amount of these notes was \$3,952,400 according to page 8 of a prospectus of Capper Publications, Inc., required by S.E.C., c1952. When the business was incorporated in 1937, the Capper Certificates were designated as Series One, and later issues of Certificates and Bonds were given different series numbers.

³⁵ *Field and Farm*, September 25, 1920. Only the subscription list and name of this paper were purchased.

³⁶ Interviews with Marco Morrow, June 16, August 1, 1952 and April 7, 1953; Winifred Gregory, ed., *Union List of Serials in Libraries of the United States and Canada* (2nd ed. New York, 1943), 1010.

³⁷ "First Things"; *Union List of Serials*, 729, 1435; Stuntz, *List of the Agricultural Periodicals of the United States and Canada Published During The Century July 1810 to July 1910*, 32, 60, 62, 88, 94, 101, 103, 130, 156, and 157. *Missouri Ruralist* took the volume numbers of the *Journal of Agriculture* as its own and could claim other eminent Missouri farm papers — such as *The Farmer's Advertiser*, *the Valley Farmer*, *The Planter and Stockman*, *the St. Louis Midland Farmer*, and *Colman's Rural World* — in its "family tree." This price was thought to be high but the mechanical equipment and building were sold in the 1940's for almost half this amount.

³⁸ Letter from Marco Morrow to A. I. Foard of the *Journal of Agriculture* staff, January 17, 1921, copy in Capper file; *Missouri Ruralist*, February 1 and 15, 1921. The business operated under the corporate name of Missouri Agricultural Publishing Company.

³⁹ The total purchase price for 5,170 shares of stock in the company was \$594,550. A further consolidation of the "Eastern trio" was made in 1928, with the *Ohio Stockman and Farmer*, the Pennsylvania edition of the *National Stockman and Farmer*, and the *Michigan Business Farmer*. Capper retained 60 per cent of the stock in the newly organized Capper-Harman-Slocum, Incorporated.

⁴⁰ Interview with Marco Morrow, November 28, 1952. This apparent reversal of an earlier practice of having all or most all of the farm papers printed in Topeka may have been due to the psychological advantage which an in-state paper had over one published outside the state. No doubt of more importance was the fact that buildings and equipment were a part of the assets of the Lawrence Publishing Company.

and perhaps elsewhere.⁴¹ But never again did he go into a new state to buy a farm paper. As a matter of fact, where he could not obtain a monopoly on state farm publications, he was inclined to withdraw. Such was the case in 1924, when he sold the *Oklahoma Farmer* and the *Nebraska Farm Journal*.⁴²

Along with the physical development of the Capper Farm Press there were adjustments and changes in the presentation of the general farm news and the special features. Editorial policies exhibited a long period of continuity and editors had the confidence of their publisher for many stayed with Capper for more than 25 years. Changes in advertising in the Capper publications were in keeping with the overall, nation-wide trends. Circulation continued to expand and the numbers of staff employed by Capper show a steady rise. One area of unusual interest to Capper was the promotion of youth clubs and many of the Capper farm papers took a close interest in club-work and other promotional projects. Perhaps the most unique editorial development in the Capper Farm Press was the manner in which *Capper's Farmer* attracted and held the farm reader's attention by means of a series of articles on "methodizing agriculture."

The search for suitable material for *Capper's Farmer*, which led to a heavy emphasis on easy-to-understand methods of performing certain agricultural tasks, was inaugurated by Ray Yarnell, who became editor in 1923. Before the days of commercial hatcheries and the development of formula feeds the raising of chicks had resulted in only about 55 per cent of the hatch ever graduating from the brooder houses. A Kansas County Agent, J. A. Hendriks, set about to reduce such losses by raising chicks as if they were with their natural mothers. Food was withheld for the first two days and small quantities were given out for the next week with slight increases thereafter. After three years of testing, Hendriks copyrighted his method and had it distributed free to farmers. *Kansas Farmer* published several articles on the Hendriks method before the first story appeared in *Capper's Farmer* in

January, 1927.⁴³ *Capper's Farmer* published case histories and pictures illustrating the Hendriks method and readers were told to write directly to the county agent for information. Within a short time, subscribers from all over the Mid-West swamped Hendriks with such a big demand for information that further copies of the chick-raising method were distributed through *Capper's Farmer*.⁴⁴ During the next 15 years approximately 300,000 copies of the Hendriks booklet were distributed to those seeking information.⁴⁵ The great and immediate reader response to this farming technique of simple procedural steps was encouraging to the editors of *Capper's Farmer*, but they did not fully understand the possibility of "methodizing agriculture" as a means of promoting reader interest in the periodical.

The opportunity for merchandising another technique came with the development

⁴¹ Interviews with Marco Morrow, April 7, 1953, Leland Schenck, April 7, 1953 and Rod Runyan, Assistant to the President of Capper Publications, April 7, 1953. One of the most recent letters in the Capper file, Roy F. Bailey to Capper, November 5, 1949, was the offer of *Better Farms* of Buffalo, N.Y. Capper's expansion of his publications at this time may have been motivated by political ambitions that reached as high as the Presidency.

⁴² The contract for the sale of *Oklahoma Farmer*, May 21, 1924, written in longhand on stationery of The New Willard Hotel, Washington, D.C., is on file in the vault at the Capper Building. The Oklahoma owners of the *Farmer-Stockman* had been making overtures to Capper for this purchase for two or three years. The price was \$85,000 for the good will, name, and complete subscription lists and Capper agreed in the contract that he would have no interest in a rival farm paper enterprise in Oklahoma for 10 years. Relations with the *Nebraska Farmer* were more friendly and Samuel R. McKelvie, the owner, was invited to make an offer for *Nebraska Farm Journal* on the same day the transfer was made in Oklahoma.

⁴³ *Capper's Farmer*, January, 1927; *Objective Journalism in Action*, n.d., n.p. This is a 60-page, hard-back booklet proclaiming the "projection" of "farming methods" by *Capper's Farmer*.

⁴⁴ *Capper's Farmer*, April, 1927. Hendriks had orders for 20,000 copies of his method before *Capper's Farmer* took the responsibility of sending them to all who requested copies.

⁴⁵ *Objective Journalism in Action*, 9; Interview with Ray Yarnell, August 4, 1952.

of a method of reducing turkey losses.⁴⁶ Reader response to an article on "Why Hatch 4 Turkeys to Raise One?" was so immediate and widespread that the editors now realized that the presentation of a simple, step-by-step agricultural method would invoke more reader interest than anything formerly used. They consciously began a search for such techniques.

In the next 20 years a total of 20 farming methods, some developed by agricultural colleges and experiment stations and some by private citizens, were publicized in the pages of *Capper's Farmer* and booklets were distributed to inquiring readers.⁴⁷ The enthusiasm for "methodizing agriculture" sometimes led to exaggerated claims or to the adoption of unwise methods, but the value of this device in attracting reader response cannot be denied.⁴⁸ The vigorous campaign to methodize agriculture which was carried on by *Capper's Farmer* apparently influenced at least one competing farm journal to change its editorial policy to conform more closely to the same pattern.⁴⁹

The development of a research department to organize a more elaborate advertising sales program came into being in Capper Publications at the close of World War I. The first year of operation cost much more than Capper had anticipated. Consequently, the separate department was abolished and the employees were transferred to the advertising department where the research work continued — often with a greater expenditure than had been the case in the first year.⁵⁰

As a result of a growing need for additional information, Capper Publications organized a new central Research Department in 1946.⁵¹ The new department grew rapidly and was ever on the alert to justify its existence. Every bit of research had to make a commercial contribution. Research reports which did not sell advertising were considered a waste of money. Stress was placed on the importance of the small-town and rural market. Advertising agencies were generally located in large urban centers and Capper's Research Department thought of itself as fighting

inertia in national advertising which pictured the farmer as largely self-sufficient or at least responsive to appeals directed at metropolitan mass markets.⁵² To prove this point, factual data were obtained to show that farmers as a group had changed from a mass to a quality market. Reports were stylized by 1948 so that a busy advertising executive could find information with a minimum of effort. Preparation of the more elaborate reports took from 1,000 to 2,000 hours. One such report making use of the regular Census of Agriculture analyzed the income level of individual farms in each of the more than 3,000 counties in the United States. Further examination of the counties where the level of income was high enough to place a large percentage of farms in the market for advertised products shows a remarkable similarity to the area of major circulation

⁴⁶ The first article on reducing turkey losses, using the method of Dr. W. A. Billings, was published in *Successful Farming*, March, 1927. *Capper's Farmer* took up the story with its January, 1928, issue.

⁴⁷ Memo to Board of Directors of Capper Publication's, Inc., from Ray Yarnell, n.d., c(February) 1941, in Capper file; *Capper's Farmer*, June 1937, and August, 1939.

⁴⁸ Letters from Ray Yarnell to Chester Davis, March 27, April 12, and April 23, 1934, National Archives; copy of letter from A. H. Lauterback, Chief, Dairy Section, U.S.D.A., to Ray Yarnell, June 26, 1934, National Archives; interview with Loyal F. Payne, then Head of Department of Poultry Husbandry, Kansas State College, December 17, 1953.

⁴⁹ *Successful Farming* during 1941 began to publicize new "management routines" which could be used to advantage by the farmer. See issues of February, July, and November, 1941, and all issues of 1942. While this may be mere coincidence, the change was apparent.

⁵⁰ Interview with Mareo Morrow, August 1, 1952.

⁵¹ Letter from Henry Blake, Vice President of Capper Publications, to Conrad Taeuber, Assistant to the Director, Bureau of Agricultural Economics, U.S.D.A., Washington, n.d., c(September) 1945 National Archives. This letter described plans then under way for the formation of a central department of research, which resulted in the department's beginning in 1946.

⁵² Interview with Victor Hawkins, Director of Research for Capper Publications, July 10, 1952.

of *Capper's Farmer*.⁵³ Thus, the research always showed the practical purpose of trying to sell advertising space in one or all of the Capper media.

Capper came into the field of agricultural journalism in 1900, when farm papers were numerous and usually of small circulation. By 1950 the remaining general farm periodicals all over the country were well-entrenched and were properties of outstanding worth. Capper's farm press had expanded outside the area of the Missouri Valley with the purchase of the "Eastern trio" and with the expansion of *Capper's Farmer*. The total circulation for the six members of the Capper Farm Press, by 1950, was slightly more than two million. The purchase of *Country Gentleman* by *Farm Journal* in 1955, combined the two companies having the largest circulation in agricultural journalism; hence, Capper Publications moved into the second ranking position in the field.⁵⁴

In 1950, the Capper Publications consisted of two daily newspapers, a monthly home magazine, a weekly, a printing company, an engraving company, and two radio stations in addition to the farm publications. The number of employees had grown to more than a thousand. When Capper died in 1951 the ownership of his vast system was bequeathed to a surviving sister and to 29 employees on condition that they were living and in the employ of Capper at the time of his death.⁵⁵ About half of the employees identified in the will qualified for their bequests. Final settlement of the will was not completed before the death, in 1956, of Henry Blake, execu-

tor of the Capper estate and President of Capper Publications.⁵⁶ Late in 1956, with the estate settled, announcements were made of the sale of the entire enterprise to Stauffer Publications, headed by Oscar S. Stauffer, a long-time member of the State Board of Regents in Kansas and a leading Middle Western publisher and radio owner.⁵⁷ Final arrangements were completed and the transfer of ownership was made February 2, 1957.⁵⁸ Stauffer, like Capper on similar occasions, announced that there would be a continuation of many of the policies of the past.⁵⁹ Thus the Capper heritage still remains with his six farm papers.

⁵³ See *Counties of the United States Classified by Farm Income Quality Groups*, Research Department Report Number 550, Capper Publications, Inc., Topeka, Kansas, n.d. The 1945 Census of Agriculture was used for this report.

⁵⁴ N. W. Ayer and Sons, *Directory of Newspapers and Periodicals*, 1956 (Philadelphia, 1956).

⁵⁵ *Topeka Daily Capital*, December 28, 1951.

⁵⁶ *Ibid.*, March 23, 1956.

⁵⁷ *Ibid.*, December 21, 1956. The FCC was advised that Stauffer was paying \$2,495,675 for the stock of Capper Publications; *Editor and Publisher*, September 22, 1956, 9, reported that Capper Publications was sold to the Stauffer group for an amount in excess of \$7,000,000. The *Editor and Publisher*, November 17, 42, verified this total and reported that \$2½ million was being paid for Capper stock and the purchaser would assume obligations amounting to \$4½ million. Stauffer Publications showed a balance sheet, as of September 30, 1956, of total assets of \$3,157,580. Two million dollars was borrowed from a Chicago investment banking firm to finance the purchase of the Capper stock.

⁵⁸ *Topeka Daily Capital*, February 2, 1957.

⁵⁹ *The Kansas Publisher*, October, 1956, 11.

FOOLING THE GOVERNMENT INSPECTORS IN PIONEER OREGON

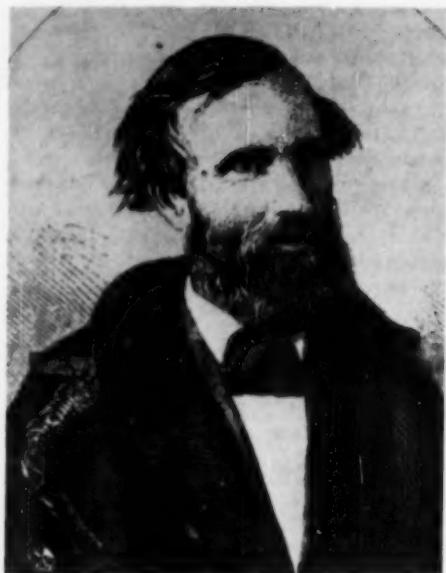
The law required that each man, to prove up on his homestead claim, must have at least one glass window in the house. Several families . . . went together in the purchase of a glass window. As a man got ready to prove up on his claim, he borrowed the window, put it up, and invited the inspectors. After their visit, he took the window down, put it under the bed ready for the next homesteader, and nailed up a sheep hide to keep the wind out. —Elizabeth Gedney in *Oregon Historical Quarterly*, Vol. 43, 1942.

Noah B. Cloud and the American Cotton Planter*

WEYMOUTH T. JORDAN

One of the Old South's most energetic promoters of improved agriculture was Noah B. Cloud, of Macon and Montgomery Counties, Alabama. Born in Edgefield District, South Carolina, in 1809, he attended schools in South Carolina and trained as a physician at Jefferson Medical College in Philadelphia. In 1838, three years after graduating from medical college, he moved to Alabama. He arrived at a time when cotton culture was coming to dominate farm and plantation activities in the state. However, he did not move to the Lower South for the purpose of opening up a large plantation in order to produce large cotton crops with a large force of Negro slaves. In contrast to many of his contemporaries, he turned immediately to a study of better farming practices, and from 1838 until his death in 1875, he showed particular interest in the following activities, all aimed at advancing the cause of agriculture: (1) diversification of crops, (2) improvement of soil, (3) promotion of agricultural and other conventions and meetings, (4) establishment of agricultural societies, (5) management of the Alabama state fair, (6) editing his agricultural magazine, the *American Cotton Planter and Soil of the South* and (7) agricultural education. As a result of these activities he established himself, in his state and region and even in the nation, as a highly respected and recognized leader in the American agricultural reform movement of the mid-nineteenth century.¹

The *American Cotton Planter* was Cloud's most significant contribution. The journal was begun in Montgomery, Alabama, in January, 1853. Its original circulation was less than 500; it reached a circulation of more than 10,000 in December, 1858. Thus, with the possible exception of the *Southern Cultivator*, a Georgia agricultural magazine edited by Daniel Lee, it became the most popular periodical



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in the South before the year 1860.² There is much evidence to show that, next to newspapers, many Southern readers pre-

*This paper was read at the joint session of the American Historical Association and the Agricultural History Society in St. Louis, Missouri, December, 1956. Portions of the paper will appear in the author's forthcoming book, *Ante-Bellum Alabama: Town and Country*, which is to be published as a number in the Florida State University Studies (1958). Research for the paper was conducted with grants-in-aid from the Social Science Research Council and the Florida State University Research Council.

¹For a summary of Cloud's activities, see Weymouth T. Jordan, "Noah B. Cloud's Activities on Behalf of Southern Agriculture," *Agricultural History*, 25:53-58 (1951).

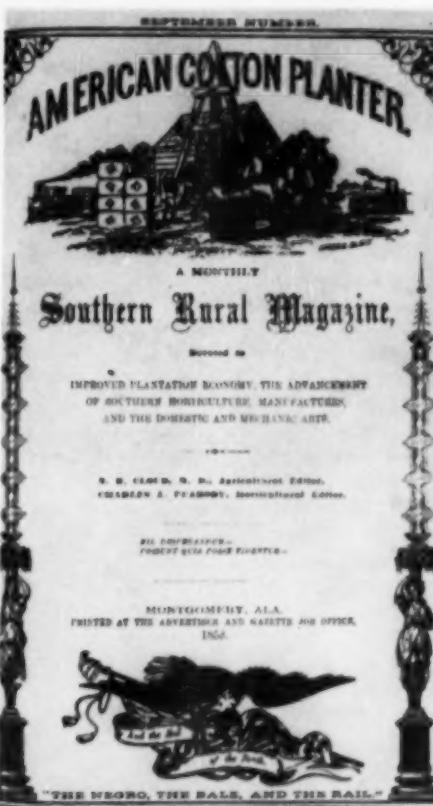
²*Advertiser and State Gazette* (Montgomery, Alabama), October 29, 1856, March 24, 1857, January 5, 1858, September 28, 1859; *Harper's Weekly*, 2:757 (1858); *Journal and Messenger* (Macon, Georgia), December 29, 1858; *Macon Republica* (Tuskegee, Alabama), June 12, 1856.

NOAH B. CLOUD AND THE AMERICAN COTTON PLANTER

ferred agricultural journals to all forms of literature.

The *American Cotton Planter* was a beautifully printed magazine. It was printed by the best job printer in Alabama, and was marked by numerous and interesting illustrations. It crusaded for railroads, manufacturing, direct trade with Europe, diversification of crops, horizontal plowing, crop rotation, use of fertilizers, improved stock, hillside ditching, drainage, agricultural education, Negro management and a farm press. Cloud wrote most of the articles in the *Planter* during its seven years' existence, but his journal also served as a clearing house for hundreds of correspondents, including overseers, dirt farmers, women and planters, who advocated better farming practices. There does not seem to be any outstanding leader of agricultural reform in the South in the period 1853-1860 who failed to contribute to the *Planter*.⁵

Newspapers and journals throughout Alabama and the South lauded Cloud and his journal from 1853 to 1861. Contemporary opinions prove without question that Cloud was indeed significant in his field of activity and that there existed a broad interest and support of the reforms advocated in his magazine. In support of Cloud's projected journal, the *Alabama Planter* of Mobile stated, December, 1852, "This work promises to be of incalculable value to the southern agriculturist . . ."⁶ In January, 1853, a Montgomery editor boosted Cloud's magazine by remarking, "We are pleased to be able to state that its permanency is placed beyond all doubt, by the large subscription list with which it has commenced, and which is daily augmenting."⁷ From Mobile came the suggestion that "our people can sustain a publication of the kind, and it is their duty to do it."⁸ A Huntsville newspaper stated that the magazine was "full of instructive and useful matter. We hope to see it succeed. Our farming friends should sustain, heartily sustain it."⁹ From Montgomery it was announced, in February, 1853, "that subscribers to the work are pouring in, and that the indications are that it will receive



a living support."¹⁰ A Prattville newspaper boasted, in March of the same year, "Each number comes to us improved in some respect, and, we doubt not, it will ere long surpass all other journals of the same kind published in the South."¹¹ It was "obligatory,"¹² added the editor, that "this noble enterprise" be supported by the people of

⁵ *American Cotton Planter* (1853-1856) and *American Cotton Planter and Soil of the South* (1857-1861), *passim*.

⁶ *Alabama Planter*, 7:29 (1852).

⁷ *Weekly Alabama Journal* (Montgomery, Alabama), January 29, 1853.

⁸ *Ibid.*, February 19, 1853, quoting *Tribune* (Mobile, Alabama).

⁹ *Southern Advocate* (Huntsville, Alabama), February 23, 1853.

¹⁰ *Advertiser and State Gazette*, February 12, 1853.

Alabama.⁹ These sentiments were echoed from Cloud's home county of Macon: "Dr. Cloud's valuable monthly is again upon our table. The dish he serves up for March [1853] is by no means inferior to those to which we set down during any of the preceding months, and the accessories are better."¹⁰

On and on went the praise for Cloud and his journal through the years 1853 to 1861. A Montgomery editor, in extolling the journal, boasted that "Its editor is just the man to make it the best Agricultural paper in the world."¹¹ In April, 1853, the *Southern Cultivator* reported that Cloud's periodical "may now be considered as a 'fixed fact.' It is conducted with much talent and industry, and is well worthy of a liberal support."¹² Similar good wishes came from Georgia's other significant agricultural journal, the *Soil of the South*, "The Doctor [Cloud] has a widespread reputation, and we hope [his magazine] may have a circulation fully commensurate with the merits of his work. Success to the *American Cotton Planter*."¹³ Cloud's "valuable journal," said the *Auburn Gazette*, "is steadily increasing in interest, and we hope but few of our readers are deprived of its excellent teachings."¹⁴ Of special interest was an editorial appearing in the *Selma Reporter* early in 1853:

The *American Cotton Planter* for May contains much instructive matter. We are particularly struck with an able essay on the policy of the cotton growing states. The writer gives a faithful picture of the gradual impoverishment of our lands, and suggests a remedy for this and other evils. The first error to be corrected, says he, is the planting of more land than can be cultivated, and at the same time improved. A large portion of labor should be devoted to ditching, draining, building, raising stock and provisions, etc., etc. Manufacturers should be encouraged by vigorous measures. The most effective of these measures, says the writer, would be to prohibit the further introduction of slaves except such as might be acquired by actual residents through marriage, or such as might be brought in by bona fide immigrants settling among us, and with the restriction that they should not be sold or hired for a term of years, unless under process of law. This would stop the drain of money, encourage white immigration, foster manufactures, etc.¹⁵

In its late years, as in the first year of its existence, the *American Cotton Planter* and its editor received an almost unbounded support from Southern newspapers and agricultural journals, thus indicating that the periodical was no mere short-lived fad. In 1857, after Cloud's journal was united with the *Soil of the South*, an Alabama writer advised: "Every farmer ought to have it, if it cost \$10 instead of \$1. We ought to have a statute in our penal code, making it a penitentiary offense for an Alabama planter to be without the 'Cotton Planter.' It is just as necessary to him as a good wife."¹⁶ In January, 1857, the magazine was eulogized by J. J. Hooper, editor of the *Montgomery Daily Mail*:

We congratulate our friends on the great improvement of the work. It is as elegant in typographical arrangement and execution as the most fastidious could desire, the general style being far superior to that of most agricultural periodicals; Besides the good reading, its pages are embellished with fine wood engravings, illustrative of subjects of interest to the stock and fruit raisers! . . . Dr. Cloud informs us that subscribers pour in by hundreds, and if the influx continues for a few weeks it will place the Planter, in point of circulation, among the first publications of its class in the Union. Let every man who desires to see a real progress in our section, lend it a helping hand!¹⁷

"In our estimation," says another Alabama editorial of March, 1857, Cloud's magazine "is the most valuable publication of the kind we have ever seen, It is not filled as some suppose, with vague and impracticable theories, but with practical common sense suggestions perfectly comprehensible [sic] and intelligible [sic] to the

⁹ *Autauga Citizen* (Prattville, Alabama), March 24, 1853.

¹⁰ *Macon Republican*, March 24, 1853.

¹¹ *Weekly Alabama Journal*, March 12, 1853.

¹² *Southern Cultivator*, 11:114 (1853).

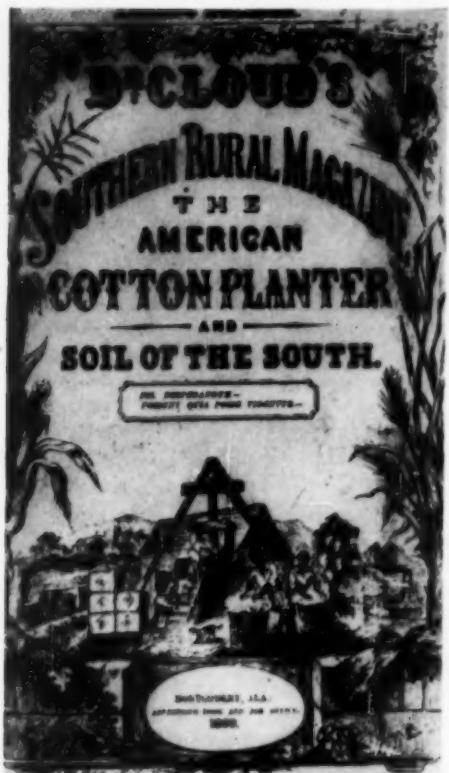
¹³ *Soil of the South*, 3:497 (1853).

¹⁴ *Gazette* (Auburn, Alabama), quoted in *Daily Alabama Journal* (Montgomery, Alabama), May 2, 1853.

¹⁵ *Tri-Weekly Journal* (Montgomery, Alabama), May 25, 1853.

¹⁶ *Spectator* (Wetumpka, Alabama), January 15, 1857.

¹⁷ *Daily Mail* (Montgomery, Alabama), January 7, 1857.



most novitiate farmer.²¹⁸ Since Charles A. Peabody, who was a resident of Russell County, Alabama, was the horticultural editor, the magazine had two very "able editors."²¹⁹ The journal was described in August, 1857, as "a gem, unsurpassed by any in the Union."²²⁰ And while praising the magazine, one editor made the following pertinent remarks:

It [the *American Cotton Planter*] enforces the doctrine that farmers should raise at home every thing necessary for the operations of their farms—leaving the cotton crop a clear profit. There can be no successful farming unless an abundant supply of provisions be produced. Without this the planter's machinery moves slowly and heavily. —With poor horses and mules—badly fed negroes, no man can work to advantage. This must be the case if corn has to be bought; everything is then stinted. But if large corn crops are planted, you have fat mules and horses—slim negroes—fine looking cattle, furnishing plenty of milk and

butter, and also plenty of fat hogs. It won't do for planters to raise cotton to buy mules and horses, and hogs, and flour and oxen, etc. Try it and you will soon find out.²²¹

Many articles from the *American Cotton Planter* were reprinted in newspapers and in magazines, which means that Cloud's journal was quite influential both in his own state and elsewhere in the South. Abundantly supplied with excerpts from the journal in some instances were such Alabama newspapers as the *Sumter County Whig* of Livingston, the Huntsville *Democrat*, the *Macon Republican* of Tuskegee, and the *Greensboro Alabama Beacon*. These and other state newspapers sometimes literally filled their pages with reprints of articles and illustrations from the *American Cotton Planter*.²²² Three North Carolina agricultural magazines that frequently quoted at length from Cloud's journal were the *Arator*, the *Farmer's Journal*, and the *North Carolina Planter*; and the editor of the South Carolina publication, *The Farmer and Planter*, also was a regular patron.²²³ *DeBow's Review* of New Orleans and the *Southern Cultivator* carried scores of articles that appeared originally in the *American Cotton Planter*.²²⁴

Cloud deserved his excellent reputation as a promoter of agricultural reform. As much as any man in the South, and perhaps

²¹⁸ *Clarke County Democrat* (Grove Hill, Alabama), March 12, 1857.

²¹⁹ *Daily Mail*, October 6, 1857.

²²⁰ *Republican* (Jacksonville, Alabama), August 19, 1857.

²²¹ *West Alabamian* (Carrollton, Alabama), October 21, 1857.

²²² See, for example, the following newspapers published in Alabama: *Greensboro Alabama Beacon*, April 24, 1857; *Huntsville Democrat*, April 7, 1853; *Livingston Sumter County Whig*, January 25, 1853; *Tuskegee Macon Republican*, July 13, 1854. See also the *Carrollton West Alabamian*, October 28, 1857; *Florence Gazette*, November 12, 1858; *Gainesville Independent*, October 10, 1857; *Grove Hill Clarke County Democrat*, November 6, 1856; *Tuscaloosa Independent Monitor*, June 18, 1857; and *Wetumpka Dispatch*, August 7, 1857.

²²³ *Arator*, 3:781 (1857); *Farmer's Journal*, 3:135-138 (1854); *North Carolina Planter*, 1:68-69 (1858); *Farmer and Planter*, 5:6 (1854), 10:11-13 (1859).

in the United States, he warranted the compliment in 1859 that he was one "of the old veterans in the cause of our country's salvation . . ."²⁵ A little newspaper in Alabama also remarked, December, 1860, that "Dr. Cloud's agricultural and horticultural monthly . . . still holds its place among the agricultural works of the country. The Doctor is one of the most enterprising men to be found anywhere, and the pages of his work give evidence of the fact."²⁶ If he had accomplished nothing else, his skilled editorship of his magnificent agricultural journal would have been more than enough to warrant the conclusion that he was one of the outstanding advocates of economic reform in the antebellum South.

Cloud's other special interest was the Alabama State Fair, which, in his capacity as Secretary of the Alabama Agricultural Society, he managed from 1855 through 1860. The following description was written by a visitor to the 1856 fair:

We half wish that the Fair was an 'established institution' — . . . always in progress — like the Court of Chancery, always open — and that we might always be there. It was no pageant . . . but a most interesting, elevating, inspiring exhibition — a social reunion — a great popular holiday . . . It was a scene to be daguerreotyped on the heart of humanity — to be 'set in a historical frame work' full of suggestions to a thoughtful patriot. There we were, old and young — politicians, merchants, lawyers, doctors, farmers — men, women and children — priest, editors and people — rich and poor — city bred and 'sun burnt sicklemen,' pedagogue and pedlar — buoyant, impulsive, generous youth and bright, innocent, radiant, fresh blown, blushing beauty; . . . There, too, were widow and widower, with wink and wile — the young bachelor and the old young maid. There we were, all, and all delighted.²⁷

Cloud, himself, wrote that the fair was on the side of science and against "old fogeyism" and "stupid opposition" to improved agriculture.²⁸ Concerning the work of the state agricultural society, he reported to the United States Commissioner of Patents in 1858:

The most important benefit resulting from our Society is the spirit of land improvement, by 'horizontalizing' and fertilizing, which is prevalent among our planters. Stock is also better,

horses, mules, milch cows, and superior breeds of swine. We are giving much attention to diversifying our crops, combining to a proper extent farming, grazing and stock purposes, with planting. An evident and large increase has been exhibited in all our agricultural products for the last few years.²⁹

Alabama did indeed make some noteworthy agricultural accomplishments during the 1850's. The acreage of improved farm land increased from 4,435,614 in 1850 to 6,385,724 in 1860, and the value of farms rose from \$64,323,224 to \$175,824,622. Among the 33 states in 1860, Alabama ranked second in cotton production, third in sweet potatoes, fifth in domestic manufactures, seventh in peas and beans, ninth in corn, and tenth in value of livestock and slaughtered animals.³⁰ She was by no means self-sufficient, but she was making progress in that direction.

If Cloud had died during the Civil War, he would very possibly be remembered as a state hero; but since he lived for a decade after 1865 and became a Sealawag, he died something of a scamp in the eyes of many Alabamians. His polities were not altogether unusual, however, and it is more than likely that what he did after 1865 he did for what he considered the good of his state. The modern Southerner does not consider all Sealawags to have been

²⁵ See, for example, *DeBow's Review*, 18:59-60 (1855), and *Southern Cultivator*, 12:381-382 (1854).

²⁶ *Southern Cultivator*, 17:142 (1859).

²⁷ *Independent* (Gainesville, Alabama), December 15, 1860.

²⁸ *Weekly Alabama Journal*, December 13, 1856.

²⁹ *American Cotton Planter and Soil of the South*, 4:386 (1860).

³⁰ *Report of the Commissioner of Patents, for the Year 1858, Agriculture* (Washington, 1859), 92.

²⁵ *Agriculture of the United States in 1860, Compiled from the Original Returns of the Eighth Census* (Washington, 1864), xlvi-xlii, lxxiv, lxxi, xiv, exxvi, 186-187; *A Compendium of the Ninth Census* (Washington, 1872), 688, 690; Lewis C. Gray, *History of Agriculture in the Southern United States to 1860* (2 vols., Washington, 1933), 2:1040, 1042; Donald L. Kemmerer, "The Pre-Civil War South's Leading Crop, Corn," *Agricultural History*, 23:236-239 (1949); James B. Sellars, *Slavery in Alabama* (Tuscaloosa, 1950), 41.

dishonest. Cloud's politics are not hard to understand; he acted as did many other men of his generation. Before the Civil War he was an active member of the Whig party and he was also a Unionist, but at the same time he was a Southerner, which he showed by serving as a Confederate surgeon during the Civil War. After the War he affiliated with the Republican party in Alabama, thus becoming a Scalawag.

Still very much interested in promoting Alabama's agricultural and industrial resources, he corresponded frequently with the United States Commissioner of Agriculture. He also wrote a series of newspaper articles entitled "The Industrial Resources of Alabama," thereby helping to create a Commission of Industrial Resources. He sponsored immigration to Alabama, and became the state's first

Commissioner of Immigration. Continuing his long-time interest in public education, he won election as State Superintendent of Education in 1868. Two years later he was elected to the Republican state legislature, where he reiterated his earlier support of an agricultural and mechanical college, this time under the provisions of the Morrill Act. He lived to see the establishment of A. and M. College at Auburn, Alabama, in 1872.³¹ As a promoter of agriculture, he unquestionably did more for the good of his state than any of his contemporaries.

³¹ *Alabama Planter*, 8:297 (1854); *Harper's Weekly*, 2:756-757 (1858); and the following newspapers of Montgomery, Alabama: *Daily Advertiser*, September 27, 1872; *Daily State Sentinel*, August 24, September 4, October 9, 24, November 2, 9, 1867; *Weekly Journal*, May 24, 1851; *Weekly Mail*, October 19, 26, 1870. See also *Tuskegee Macon Republican*, August 19, 1852.

WHEN WOMEN WERE WOMEN ON THE KANSAS PRAIRIES

Mrs. Mary C. Hawes of Crooked Creek, four miles north of Bulls City, has this season, with a yoke of oxen driven by herself, broken twenty-five acres of prairie; drove the oxen to break twenty-five acres more; has shot two buffalo with her rifle, which she calls "Betsy." Her plowing is very well done and with the rifle she is an expert. She has the best crops of corn, etc., that there are in her neighborhood. — Cawker City (Kansas) *Sentinel*, July 30, 1872.

ORIGIN OF INDIA'S CASHEW NUTS

Cashew trees were first introduced into India during the 16th century by the Portuguese, who planted them along the Malabar coast in an effort to check soil erosion. Now, after 400 years, these soil erosion preventers have become one of India's biggest cash crops. India controls 90 per cent of the international trade in cashew nuts and cashew shell oil, which is highly prized for making paints and varnishes.

The Role of Railroads in Agricultural Development

The papers by Stanley N. Murray and C. Clyde Jones, in the following group, were read at a joint session of the Mississippi Valley Historical Association and the Lexington Group at Lincoln, Nebraska, May 3, 1957. The contribution by Mildred Throne, presented at an earlier meeting of the Lexington Group, serves as an introductory discussion to the subject.

Suggested Research on Railroad Aid to the Farmer, With Particular Reference to Iowa and Kansas

MILDRED THRONE

The words "farmer" and "railroad" usually bring to mind a picture of conflict and enmity. The bitter struggle of the Granger and Alliance years was so dramatic that the other side of the story is often ignored. To the newcomer in agricultural history research, the farmers' attitude toward the railroads in the 1850's and 1860's comes as something of a surprise. The newspapers and farm journals of these decades are filled with glowing references to the great benefits the farmers would gain from the coming of the railroads. Little attention has been given by historians to this particular phase of railroad-farmer relations. Granted, the farmer-railroad "honeymoon" was short, but it was also enthusiastic. At first, areas fortunate enough to secure two or three competing roads profited by the resulting rate wars. When, however, all roads charged the same rates, and talk of railroad "pooling" circulated among the farmers, the first discord appears. Almost from one issue of a newspaper or farm journal to another, the researcher will find increasingly caustic criticism of the railroads, until, during the 1870's, little good can be found in the papers about railroads, with the exception of grudging admissions that transportation had been speeded.

During the 1850's, however, farmers were almost unanimous in their support of railroads, and also unanimously aware of the benefits resulting from this new and

speedy method of transportation. J. M. Shaffer of Iowa, active in the state and local agricultural societies, wrote in 1859 of the benefits to Iowans of the presence of the new Burlington & Missouri River Railroad in southern Iowa and especially of its services during the hard times following 1857. "Without this public thoroughfare," wrote Shaffer, "it is difficult to conceive how we should have kept from actual suffering." The Burlington, he continued, enabled them to buy their flour at \$5.50 to \$7.00 per barrel, instead of \$9.00 or \$10.00 — the usual cost before the coming of the railroad.¹ In Washington County the local editor urged farmers not to grumble at the local railroad tax by reminding them that before the arrival of the railroad they had paid from 30 cents to \$1.00 per hundred pounds for wagon freighting — the price based on the condition of the roads — whereas produce could be shipped via the railroad at an average of \$3.20 per ton.² Cattle and hog raisers made a larger profit when they were able to ship stock in a more highly finished state to eastern markets by railroad. Instances of this type of aid to the farmer could be multiplied many times. Newspapers, farm journals, and state or

¹A paper read before the Lexington Group — MVHA, Rock Island, Illinois, 1948.

²Annual Report of the Iowa State Agricultural Society . . . 1859, 268-269.

³Washington (Iowa) Press, January 12, 1859.

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Circular Advertising Burlington Lands, 1873

county agricultural society reports are full of them.

The next phase of railroad aid, of course, is the colonization work of the larger western roads. Colonization histories of the Burlington, the Illinois Central, and the Canadian Pacific have been written. The Santa Fe carried on a similar and equally active colonization policy, with eastern and European agents busy rounding up prospective settlers. The Santa Fe agents met several reverses, including a grasshopper plague in 1874, a drought in the early 1880's,³ and the Kansas temperance movement, which interfered considerably with the work of the Santa Fe's European agents.⁴ Interest in Kansas land declined rapidly when news of the prohibition movement in that state reached Germany.

Railroad land grants and the sales of these grants have been bitterly attacked. But the conditions of sale of some of these grants provided that the greater part of the land was to be sold only to actual settlers. The Burlington, early convinced that sales to farmers, even at a lower price, would bring more business than sales to land agents or speculators, from the very beginning laid out a program with this end in view.⁵ The Burlington sold farms on a ten-year credit plan at six per cent interest, and the terms provided that at least one-tenth of the land should be improved yearly for the first three years of the contract.⁶ Although there was some objection in the 1870's — the years in which the Burlington lands were first put on the market — to the large tracts of land granted to the railroads, the growth of markets and the higher prices for produce offset the increased cost of farmland in the opinion of most farmers. Those already settled in the state profited by rising prices of produce and of land; those who came to purchase farms were willing to pay extra to secure the advantage of railroad transportation for their produce. A Des Moines County farmer pointed out that it was easier to buy railroad land than to purchase from a land agent:

The terms offered by railroad companies enable any one with small ready means to buy a farm,

whereas, if a purchase be made of a land jobber, one-fourth to one-third of the purchase money is expected to be paid in advance, and the entire amount by the second or third year. This is sooner than the money can be made off the land, unless the purchaser has ready capital with which to support his family and make improvements.⁷

Results in Iowa of the Burlington advertising and sales can be seen by the rapid increase in population and in improved acreage, especially in the southwestern counties containing most of the Burlington lands. Twelve counties contained 361,260 acres of the 386,180 acres in the Burlington grant. In these counties population increased 89 per cent in the decade 1870 to 1880, in contrast to a 39 per cent increase in the whole of southern Iowa. Improved acreage increased 248 per cent, as compared with an increase of 96 per cent for the southern area.⁸ A comparison study of a "railroad county" with one where the railroad had no land would possibly reveal how much influence the railroad sales policy had on agricultural development.

In Kansas the Santa Fe lands were sold on similar terms with payments spreading over about eight years at an interest rate of six per cent. Further research here should show the same rapid increase in improved acreage in the counties traversed by the Santa Fe.

These facts, however, are well known, although further study would reveal a clearer picture of the important agricultural results accruing from the presence of a railroad and the influence of its land policy. Another and more far-reaching phase of farmer-railroad relations has

³ *Topeka Capital*, September 29, 1897.

⁴ *Topeka Commonwealth*, July 23, 1881.

⁵ Richard C. Overton, *Burlington West: A Colonization History of the Burlington Railroad* (Cambridge, 1941), 159, 293-294.

⁶ *Ibid.*, 296; *Annual Report of the Iowa State Agricultural Society* . . . 1871, 39; *Osceola Republican*, July 18, 1872.

⁷ *Country Gentleman*, 26:293 (May 11, 1871).

⁸ Figures compiled from *1836-1880 Census of Iowa* . . . (Des Moines, 1883), 197-9, 240-43, 244-7; *Iowa Board of Immigration, Iowa: The Home for Immigrants, Being a Treatise on the Resources of Iowa* . . . (Des Moines, 1870), 48; Overton, *Burlington West* . . . , 232, 457.



Burlington Emigrant Home

hardly been touched by historians, and that is the direct aid given to farmers by the railroads — aid in the form of experimental farms, demonstration trains, agricultural and industrial departments maintained by the larger roads, and assistance in the introduction of new crops. In the eastern states, and in the first tier of states west of the Mississippi, the farmers needed little advice or assistance from the railroads. They were farming lands with which they were familiar and in a climate like that of the eastern states from which they had come. Likewise, the European immigrants settled on land and in climates similar to those they had left in Europe. It was when the farmer reached the semi-arid Plains — the second and third tier of states west of the Mississippi — that he found a land and a climate with which he was not familiar. Here was a land different from that of any previously farmed by American or western European.

This land, so long mistakenly called the Great American Desert, presented problems to the woods-and-prairie farmer as well as to the experienced and trained agriculturist. Fortunately, the early years of settlement were years of unusually plentiful rainfall. Thus, the myth of the Great American Desert was buried with due

ceremonies. Then came the drought years in the 1880's, and in some places the westward movement was reversed and such slogans as "In God We Trusted, in Kansas We Busted" appeared.

In Nebraska, in Kansas, in Colorado, Montana, Wyoming, and in the southwestern states, American and European farmers met a new kind of Nature, and they needed help in conquering it. Research should show that one of the primary factors in the conquering of the Plains was the experimental work of practical farmers and of the agricultural departments and colleges. The spreading of the information thus gained helped the farmer conquer the Plains. And the railroads took part in this work, either in actual experiments themselves, or by lending aid and facilities to the spreading of information in cooperation with the agricultural experts. Thus, although the topic of this study deals with Iowa and Kansas, the information cannot be limited to those states alone. The railroads did not stop at the state borders — their work covered several states and was more intense in one state than in another. For instance, Iowa farmers followed an age-old pattern of agricultural practices long known to their forefathers. Iowa's soil and climate presented no unusual problems. Thus, the Burlington aid to the Iowa farmer is largely indirect: the presence of the road merely quickened the corn belt type of farming already developed in that state. When, however, the Burlington built its lines into Nebraska, new conditions were encountered.

The Illinois Central and the Great Northern had already pioneered in direct agricultural aid to the farmer, showing him how to improve his methods, increase his production, and better his livestock. The Canadian Pacific also had done pioneer work in this field by distributing seed, bringing in fine breeds of cattle, sponsoring irrigation projects, setting up model farms, and advocating dry farming. In

1912 a Department of Natural Resources had been established to aid farmers.⁹

The Burlington in Nebraska soon introduced many such types of direct aid to the farmers there. This work has been summarized in a pamphlet, "Western Agriculture and the Burlington," prepared by the Agricultural Development Department of the railroad and published in 1938. This pamphlet is, however, unaccompanied by documentation; the historian would prefer a more exhaustive and thorough study. Early in the 1870's, the same grasshopper plague that interfered with the Santa Fe land sales hit Nebraska and the Burlington. The road at once came to the aid of the farmers with free transportation of seeds—seeds which were delivered to the Granges for distribution.¹⁰ The Burlington introduced more trees into Nebraska, also, both by planting them along its own right-of-way, much to the amusement of some farmers, and later by establishing a nursery from which trees were given to settlers on Burlington lands. The railroad introduced alfalfa into Nebraska by bringing the seed from California and parcelling it out to reliable farmers who would give it a good trial.¹¹

The railroads encouraged better soil culture. In 1895 the Burlington employed Hardy W. Campbell, a successful farmer in the semi-arid region of South Dakota, to conduct meetings among farmers and to give instruction in farming in dry regions. Campbell also carried on a series of tillage tests in several places in Nebraska and at one station in Kansas, thereby demonstrating the value of dry farming. Experimental farms were established under Campbell's direction, and he became justly famous throughout the Plains area.¹²

In order to spread information regarding its experimental work, the Burlington in 1895 began the publication of a monthly farm magazine, the *Corn Belt*, which was distributed free to any farmer asking for it. Published for seven years, this magazine did much to spread new and better agricultural ideas among the farmers along the lines of the Burlington.¹³

Irrigation in the North Platte valley of

Nebraska is another feature of the Burlington's farm aid. The resulting increase in production made apparent the need for a better breed of stock to consume the excess produce of the farms. The Burlington again aided in the introduction of pure-bred beef and dairy cattle by sending a Dairy Improvement exhibit car to various Nebraska stations, arousing much interest and attention. In cooperation with the College of Agriculture in 1924, the Burlington operated a special train through Nebraska, carrying 31 pure-bred sires contributed by breeders anxious to improve Nebraska stock. These bulls were exchanged at the various stations for scrub steers. Literature was distributed freely, and columns of publicity in the local press aided in spreading information on better methods.¹⁴

Seed trains, poultry trains, exhibits at the local and state fairs, cooperation with the 4-H clubs — these and many other activities sponsored by the Burlington helped improve agricultural methods and production in the states served by that road. In the late 1920's the Burlington sent a nine-car demonstration train through Iowa and Nebraska for the encouragement of better swine — a train alliteratively named the Profitable Pork Production Special.¹⁵

In common with other western roads, the Burlington also encouraged the production of sugar beets. In Kansas and Colorado the Santa Fe sponsored the develop-

⁹ James B. Hedges, *Building the Canadian West: The Land and Colonization Work of the Canadian Pacific Railway* (New York, 1939), 320, 322, 32.

¹⁰ O. O. Waggener, "Western Agriculture and the Burlington" (Chicago, 1938), 11. [Largely as a result of Miss Throne's remarks concerning this pamphlet and the need for a thorough, documented study, C. Clyde Jones prepared a doctoral dissertation on "The Agricultural Development Program of the Chicago, Burlington & Quincy Railroad" (Northwestern University, 1954).]

¹¹ Waggener, "Western Agriculture," 14-17.

¹² *Ibid.*, 20-23.

¹³ *Ibid.*, 23.

¹⁴ *Ibid.*, 30-31.

¹⁵ *Ibid.*, 55.

ment of the sugar beet industry, with such success that a Topeka paper in 1901 carried the startling headline: "Santa Fe as a Trust Buster."¹⁶ The story explained that the "railroad's forethought will kill the Sugar Trust," and pictured the American Sugar Refining Company as "gasping" in dismay.

In addition to its active colonization work, the Santa Fe carried on a campaign of assistance and education for the farmers along its route. In a pamphlet entitled "Kansas — A Folder for Kansas People," published sometime in the second decade of the twentieth century, President E. P. Ripley described the work and the goal of the Santa Fe's Agricultural Department: We maintain an agricultural department whose mission is to carry on experiments the year round, giving the farmers the results. Our agricultural experts, all graduates of agricultural colleges, and with practical experience, keep an eye on the farmers who move into our territory from other parts of the country, to see that they start right.

Ripley went on to elaborate on why the Kansas farmers needed this assistance:

The Indiana farmer, moving into southern Kansas, for instance, might think he could employ the same farming methods in the new country that he used in the Hoosier state. It is the work of our agricultural experts to help the new farmer acquire knowledge of the actual climatic and soil conditions so that his mistakes may be few and his success assured.¹⁷

The Agricultural Department of the Santa Fe also sponsored demonstration trains, in cooperation with agricultural colleges. Pamphlets published by the Santa Fe to encourage new settlers contained much information about the farming possibilities of Kansas. One of these booklets, "Kansas — Heart of the Continent," included an article by W. E. Grimes of the Agricultural College entitled "How to Make a Start." Other such publications included circulars on sheep raising in Kansas, cattle raising, irrigation, and the possibilities for the growing of sugar beets.¹⁸

The *Santa Fe Employees' Magazine* contains many articles on farming and should prove a mine of information for the researcher. Articles describing the demon-

stration trains and the work of agricultural demonstrators are among those of value. The July, 1912, issue describes the work of the demonstrators in helping selected farmers, who worked under the direction of the demonstrators on plots varying from one to ten acres, trying out new crops or new methods of tillage.¹⁹

In 1916 the Santa Fe established an Agricultural Development Department, reported by the Topeka *Journal*²⁰ as "the biggest agricultural development project in the history of the west," a description probably more enthusiastic than accurate. Nevertheless, a study of the work of this department should show some interesting results. Many demonstration trains were run by the Santa Fe, trains which the papers soon dubbed "Cow, Sow, and Hen" trains.²¹ In an effort to improve Kansas wheat, the Santa Fe sponsored a seed wheat exchange plan, whereby farmers from different areas could exchange seed, thus endeavoring to increase the yields on the theory that transferring seed from one locality to another would improve production.²² A publication of the Santa Fe, similar to the Burlington's *Corn Belt*, was called *The Earth*, first published in 1904. A six months' subscription was furnished free to interested farmers; after that, the subscription rate was 50 cents yearly.²³

The Kansas Pacific Railroad, later to become a part of the Union Pacific system, as early as 1870 operated three experimental farms in Kansas. Section VIII of the "By-Laws . . . of the Kansas Pacific Railway Company" provided for an industrial agent whose job was to "act under special instruction of the President, and

¹⁶ Topeka *Herald*, Oct. 15, 1901.

¹⁷ "Kansas — A Folder for Kansas People" (n. p., n. d., published by the Atchison, Topeka & Santa Fe Ry.), 6-7.

¹⁸ These pamphlets are on file at the Kansas State Historical Society in Topeka, Kansas.

¹⁹ *Santa Fe Employees' Magazine*, 6:42 (July, 1912).

²⁰ *Topeka Journal*, Aug. 11, 1916.

²¹ *Ibid.*, Mar. 5, 1917.

²² *Ibid.*, Sept. 18, 1916.

²³ A file of this magazine is available at the Kansas State Historical Society in Topeka.

carry out his views in relation to the development of the resources along the road, agricultural, mineral, and pastoral."²⁴ The annual reports of the Kansas Pacific contained reports on these three agricultural stations, describing the results of certain experiments in grasses, grains, and trees. One such report contained the following information: "Your experiments show that an immense area of the State of Kansas will produce winter grains without irrigation, in a region heretofore reported to be too arid for cultivation without artificial supplies of moisture."²⁵

This has been merely a quick survey or sampling of information available in newspapers, farm journals, and published material in libraries and museums. A more thorough study of one railroad's work — or of the work of various railroads in one

area — using the records of the railroad agricultural departments, should reveal an interesting chapter in agricultural and in railroad history. A study of agricultural census figures, for instance, before and after the existence of some of this developmental work, should indicate the results, if any, of the activities of the various roads. The source material is plentiful and easily available. In fact, the whole picture of the better farming movement would be incomplete without the story of the work of the railroads.

²⁴ "By-Laws and Rules for Conducting the Business of the Kansas Pacific Railway Company" (St. Louis, 1870), 22.

²⁵ Annual Report of the Industrial Agent, Kansas Pacific Railway, 1872 (in Kansas Pacific Railway Pamphlets, Vol. 6, in Kansas State Historical Society, Topeka.)

WHEN BRAHMIN CATTLE CAME TO SOUTH CAROLINA IN 1853

In 1836, having had some experience in the importation of short-horned, Devon and Ayrshire cattle into this state, I then summarily advanced an opinion, "that all cattle brought from a Northern to our Southern climate must necessarily degenerate to the peculiarities of our location, and that it would be easier to improve cattle already acclimated, or import animals from a still warmer region." In my late sojourn in Asia and the East, I had reference to this observation in importing the Brahmin ox. . . . I brought but one pair to the United States, and, as far as I can learn my crosses of them upon other cattle are the first known in this country. I crossed this bull upon Ayrshire, Devon and Durham breeds, as well as upon our common cattle. The offspring is considered, by all who have seen them, far the handsomest animal of the cow kind. They are symmetrical and active, and can keep fat when any other cow would starve. I had this half-breed crossed again upon our

cattle, but am not yet sufficiently experienced to report of their milking qualities. As evidence, however, that our agriculturists confide in the appearance—my half-breeds readily sell for \$1,000 a pair, and the second cross, or half Brahmin, at from \$100 to \$300 each. Preferring the mixed breeds to the pure, I sold to Mr. Edes, of Kentucky, the original pair for \$4,000, as that State would prove a better place to breed and disseminate the stock. As Kentucky is the dependence of the South for beef, they needed an animal that could come to us in the hot months of summer and remain healthy and sound. They have from this animal a progeny that will travel thirty miles a day in August, and the further south they go the better suited — the great desideratum to the Northern breeder and the Southern consumer. — James B. Davis, Columbia, South Carolina, in a letter to the U. S. Commissioner of Patents, 1853.

Railroads and the Agricultural Development of the Red River Valley of the North, 1870-1890

STANLEY N. MURRAY

At the 1946 meeting of the Lexington Group of MVHA, the program was devoted to a reconsideration of the federal land grant policy. This topic was selected, in part, as a result of reaction to an article by Robert S. Henry entitled "The Railroad Land Grant in American History Texts."¹ At the meeting, Henry agreed that further work was needed before any definitive judgment could be made concerning this type of aid to the railroads.² The chairman of the 1946 meeting, Richard C. Overton, made a similar conclusion in the introduction to his *Burlington West*. He felt that a great deal more study was necessary before there could be any final evaluation of the land grant question or the role of railroads in the economic development of the trans-Mississippi West.³

There are many regions and railroads to be studied that will increase knowledge about land grants and the role of the railroads in United States history. There is one area in particular, however, that provides a unique opportunity to observe railroad expansion, land colonization policies, and agricultural advancement. This is the valley of the Red River of the North.

The Red River, whose source is located in northeastern South Dakota, separates North Dakota and Minnesota. It empties into Lake Winnipeg in southern Manitoba. The alluvial valley of this river, formed from the deposits of glacial Lake Agassiz, is an area of nearly 12,000 square miles. It is a perfectly level, almost treeless plain that has served as an important international arena for agriculture since 1871. The Canadian sector of the valley was the birthplace of farming in the entire prairie province region; while in the late 1870's a combination of eastern capital, local conditions, and human energy created a new agricultural empire in the United States

area. The American part of the valley became another "gold strike," where seas of golden grain created fortunes for bonanza farmers.

Several extensive studies have been made of early settlement in the Red River Valley. Collectively they reveal that this process consisted of a complex series of events. Large-scale immigration movements, public land laws, sufficient rainfall, the development of farm machinery, economic conditions elsewhere in North America, and political events were factors that led to the occupation of this area. These studies also show that the fortunes of two present-day American railroads were inextricably linked to the abundant crops and rapidly increasing settlement in the Red River country between 1871 and 1890.⁴

The early location and operations of both of these railroads, the Northern Pacific and the St. Paul, Minneapolis and Manitoba

¹ Robert S. Henry, "The Railroad Land Grant in American History Texts," *Mississippi Valley Historical Review*, 32: 171-194 (June, 1945-March, 1946).

² Paul Wallace Gates, "The Thirty-Ninth Annual Meeting of the Mississippi Valley Historical Association," *Mississippi Valley Historical Review*, 33:266-267 (June, 1946-March, 1947).

³ Richard C. Overton, *Burlington West; a Colonization History of the Burlington Railroad* (Cambridge, 1941), 8.

⁴ The most important of these studies are: James B. Hedges, "The Colonization Work of the Northern Pacific Railroad," *Mississippi Valley Historical Review*, 13:311-342 (1927); John Lee Coulter, "Industrial History of the Red River Valley," *Collections of the State Historical Society of North Dakota*, 3:529-672 (1910); Trevor Lloyd, "The Red River Valley of Manitoba: A Regional Study," (Ph.D. thesis, Clark University, Worcester, Mass., 1940); Arthur Mochlman, "The Red River of the North: An Analysis of the Advance of the Frontier of Settlement in the Area, 1850-1890," (Ph.D. thesis, University of Michigan, 1934).

(the present-day Great Northern), were concentrated in this sector of Minnesota and North Dakota. Though the Northern Pacific track extended from Duluth to Bismarck in 1873, trains were not regularly operated west of the Red River Valley until nearly 1878. The traffic, and potential traffic, between St. Paul, Fargo, and Winnipeg in this period was promising enough to inspire James J. Hill and his Canadian associates to gain control of the defunct St. Paul and Pacific line in 1878. The newly-formed St. Paul, Minneapolis and Manitoba company quickly completed a line northward through the Red River Valley to meet a branch of the Canadian Pacific at the forty-ninth parallel. This union completed the rail link between the lower Red River area and the outside world.⁵

The establishment of rail connections between St. Paul, Fargo, and Winnipeg solved the problem of transporting potential surplus crops to market. It also enabled the importation of lumber, farm equipment, great numbers of immigrant settlers, and all supplies needed to create permanent communities. Meanwhile, since much of the best land owned by the Northern Pacific and the Manitoba roads was located in the Red River Valley itself, a significant share of the colonization work undertaken by both companies between 1871 and 1890 was concentrated in this area. These roads spent vast sums to stimulate farm settlement, to promote agricultural success, and to expand their services to all parts of the valley.

Commercial agriculture not only expanded rapidly in the Red River Valley between 1876 and 1886, but also it proved to be tremendously profitable. In turn, the prosperity of wheat farming in this part of North America helped to create the initial financial stability of the Northern Pacific and St. Paul, Minneapolis and Manitoba railroads. It enabled their expansion into regions farther west.⁶ Because the fortunes of this area and the railroads that served it were so closely linked, a more detailed analysis of the Red River story

should add considerably to a greater understanding of both railroad land grants and agricultural history.

The Role of the Northern Pacific. Many trans-Mississippi areas that were developed as a result of railroad expansion had never been occupied previously by permanent agriculturalists. Such, however, was not the case of the Red River Valley. As early as 1812, the Hudson Bay Company sponsored the settlement of Scottish farmers near the site of present-day Winnipeg. When Henry Youle Hind led a Canadian exploration to this area in 1857, he found men there that were quite advanced in their knowledge and practice of agriculture. These Scottish, English, and Canadian people raised excellent grain and vegetables, and they were using recently-purchased American farm equipment.⁷

The best of these farmers were discouraged, however, for although they had good crops and livestock, the market for these products was limited to the Hudson Bay Company community at Fort Garry (Winnipeg). The outstanding farmer visited by Hind felt that he could expand his operations infinitely if the Hudson Bay Company control over trade were removed and a means could be found to transport farm surpluses to an outside market. The British House of Commons set up a select com-

⁵ St. Paul, Minneapolis and Manitoba Railway Company, *Annual Report[s] to the Stockholders, 1881 to 1890*; Northern Pacific Railroad Company, *Annual Report[s] of the Board of Directors and President to the Stockholders, 1876-1890*; Joseph G. Pyle, *The Life of James J. Hill* (New York, 1917), 1:303.

⁶ St. Paul, Minneapolis and Manitoba Railroad, *Second Annual Report to the Stockholders, 1881, 8*; Northern Pacific Railroad, *Annual Report[s] of the Board of Directors and the President to the Stockholders, 1879-1890*; James J. Hill, *The Great Northern and the Northwest* (n.p., 1912), 6-8; James Wickes Taylor, "Consular Report from Winnipeg, 1888-1889," *Commercial Relations of the United States with Foreign Countries During the Years 1888 and 1889* (51st Congress, 2nd Session, House Executive Document, No. 70, Serial No. 2859), 289-293.

⁷ Henry Youle Hind, *Narrative of the Canadian Red River Exploring Expedition of 1857 and of the Assiniboine and Saskatchewan Exploring Expedition of 1858*, I (London, 1860), 149-153.

mittee to investigate this situation, and the testimony given before this committee confirmed what Hind had reported.⁸

The Hudson Bay Company finally surrendered its control over the British Northwest in 1869. By 1870, the Canadian sector of the Red River Valley was open for agricultural colonization by Canadian and British people. The farmers of Manitoba, confident that a railroad would be extended to the new province by 1873, eagerly anticipated an expanded market for their produce. They were correct in assuming that rail connections with the outside world would change their economic status, but it was not until the St. Paul, Minneapolis and Manitoba road reached the border in 1879 that their hopes became a reality. Until that time, the settlement of the Canadian Northwest was to be a relatively slow process, and the agriculture of this area remained limited to little more than a subsistence level.⁹

Settlement in the United States sector of the valley was very sparse before the arrival of the railroad in 1871. It was limited to a few subsistence farmers, a military garrison or two, and the men that maintained the St. Paul-to-Winnipeg stage stations. The completion of the Northern Pacific line from Duluth to Fargo provided the first real stimulus to settlement in both the Canadian and American parts of the valley. Immigrants and native Americans alike began to establish farmsteads along the railroad track, the Red River, and smaller streams south of the forty-ninth parallel. After 1872, steam-boats carried large groups of Manitoba-bound immigrants northward from the railheads at Fargo and Breckenridge.¹⁰

The land department of the Northern Pacific road was organized in 1871, and in 1872 James B. Power became the general land agent. From 1871 through 1874, Power directed a spirited campaign to settle the company's land in Minnesota and eastern Dakota. He was experienced in this type of work, and many of his methods were similar to those used by other railroad land commissioners in this period.¹¹

Power advertised his area widely in North America and recruited extensively in Europe for settlers. To aid farmers in adapting to the treeless northern prairies, the Northern Pacific land department established a large tree nursery and distributed free cuttings to settlers.¹² Power also brought in rye seed that had been successfully adapted to this part of the country.¹³ The company's land rates were relatively reasonable.¹⁴ Seven-year credit arrangements were devised for the purchasers of small tracts, and rebates were given for improving the land. When grasshopper plagues injured crops, Power extended the notes of actual settlers; he even helped some of them to pay taxes

⁸ *Ibid.*, 149-153; *Report of the Select Committee on the Hudson Bay Company, 1857; together with the proceedings of the committee, minutes of evidence, appendix, and index* (ordered by the House of Commons to be printed 31 July and 11 August, 1857, London), 89-264.

⁹ John S. Galbraith, "The Hudson Bay Land Controversy, 1863-1869," *Mississippi Valley Historical Review*, 36:457-478 (1949-1950); James Wickes Taylor, "Consular Report[s] from Winnipeg," 1871-1881, printed in the *Reports upon Commercial Relations of the United States with Foreign Countries* (House Executive Documents, 1872-1882).

¹⁰ The Northern Pacific line reached Fargo in 1871, and the track of the St. Paul and Pacific road was extended to Breckenridge, 45 miles south of Fargo, in the same year. See Mochlman, "The Red River of the North: An Analysis of the Advance of the Frontier of Settlement in the Area, 1850-1890," 64-65, 113-196.

¹¹ Power had worked for the land department of the Minnesota Central Railroad before 1872. His predecessor on the Northern Pacific was John S. Loomis, who had helped to sell the lands of the Kansas Pacific in Kansas and Colorado. The published works on the colonization activities of the Illinois Central and the Burlington roads illustrate the amazing similarity between Power's methods and those used on these other roads. See James B. Power to Frederick W. Billings, April 10, 1875 (James B. Power Papers-M88 in North Dakota Agricultural College Library, Fargo, North Dakota); Hedges, "The Colonization Work of the Northern Pacific Railroad," 311-342.

¹² James B. Power to Frederick W. Billings, April 10, 1874; Power to George A. Johnson, December 3, 1875.

¹³ Power to J. H. Lent, August 18, 1876.

¹⁴ The average price in 1872 and 1873 was \$5.58; between 1873 and 1875 it went down to \$5.04.

when they were hard pressed for funds.¹⁵ The railroad built reception houses to provide temporary quarters for land seekers, and permanent-type, pre-cut houses were made available to settlers who could afford them. Power provided detailed information on the initial costs of homesteading; while at all times he encouraged settlement on government and railroad lands alike.¹⁶

There was a slow but steady increase in immigration to the Red River country between 1871 and 1875, yet the people in the entire valley did not immediately transfer this fertile lowland into a region of commercial farms. This was due, in part, to general depression conditions evident throughout the nation, to the heavy infestation of grasshoppers in the valley prior to 1875, to the relatively high freight rates charged by the railroads, and to the fact that incoming settlers absorbed most of what was produced in this area. Despite the favorable report on the valley given by the Surveyor-General of the United States, the Red River region and the treeless plains of the Northwest had not yet "caught on." Neither settlement nor agriculture expanded to any significant degree until the farmers shifted from subsistence farming to a one-crop emphasis.¹⁷ The financial crisis of 1873 and James B. Power played an important role in this shift to wheat farming.

The failure of Jay Cooke in the fall of 1873 touched off a movement that was to be of considerable importance to settlement and agriculture in the valley area. When the value of Northern Pacific bonds dropped to 40 cents on the market, several discouraged bondholders began to take advantage of their right to exchange these securities for land owned by the railroad. Between September, 1873 and September, 1875, the Northern Pacific land department disposed of 483,141 acres. Sixty-three per cent of this amount, or 304,165 acres, was purchased by 23 bondholders.¹⁸

The reorganization of the Northern Pacific company took place in 1876, and in the process, the original bonds were exchanged for new issues of stock. In this

same year, however, the market value of these stocks dropped to as low as 10 cents. This continued drop in value resulted in even more exchanges of stock for land. In the three-year period from 1875 to 1878 an additional 1,240,363 acres were sold by the land department. There were 1,498 purchasers for this total acreage, but only 500 of them were actual settlers that purchased tracts varying from 80 to 320 acres. Seventy per cent of the buyers were stockholders. Forty individuals alone purchased 587,270 acres, with the average purchase amounting to 14,685 acres. Most of these large tracts were located in the Red River Valley, close to the main line of the road.¹⁹

James B. Power was optimistic about the success of his office in selling land in this period from 1873 to 1878, but he was also aware that absentee ownership of an important share of the valley presented a serious problem. The Northern Pacific desperately needed examples of successful commercial farming in the Red River Valley in order to promote further settlement along its line. As early as 1873, when the first bonds were exchanged for land, he urged that large purchasers be required to cultivate portions of their tracts.²⁰ To expedite this matter, Power began to discriminate in his selections of land for non-resident bondholders. Those that wished to cultivate were given tracts near the line itself. The men that were mainly seeking to get

¹⁵ Power to Major George D. Hubbard, December 14, 1873; Power to Ole Giarde, January 13, 1876; Power to Asa Sargent, February 26, 1876; Power to L. J. Cravath, November 27, 1873; Northern Pacific Land Department, *Guide to the Lands of the Northern Pacific Railroad in Minnesota* (New York, 1872), 4-29.

¹⁶ Hedges, "The Colonization Work of the Northern Pacific Railroad," 311-342; Northern Pacific Land Department, *Guide to Northern Pacific Lands*, 4-29.

¹⁷ Coulter, "Industrial History of the Red River Valley," 557, 566.

¹⁸ James B. Power, "History of the Northern Pacific Land Department Transactions from the Commencement of Sales, June, 1872 to November 30, 1880," 472-497, in James B. Power MSS, *Letterpress Copybook, 1880-1882*.

¹⁹ *Ibid.*

²⁰ Power to A. B. Nettleton, Trustee's Agent, October 30, 1873.

rid of their bonds, or were interested in speculative purchases, had to be satisfied with tracts farther removed from the railroad.²¹

In late 1873, Power instigated a more intensive campaign to induce the non-resident owners to cultivate their holdings. He concentrated upon four men in particular: Northern Pacific President George W. Cass; Frederick W. Billings, chairman of the road's land committee; board member Benjamin P. Cheney of Boston; and Charlemagne Tower of Pittsburgh. Power personally selected choice Red River Valley land for these men in December of 1873 and in the spring of 1874. He never succeeded in getting Billings or Tower to cultivate to any great extent, but his efforts with Cass and Cheney were well worth the time he spent.²²

In 1873, a farmer in the valley produced a 1,600-bushel wheat crop on 40 acres. This crop sold for \$1.25 per bushel, or \$2,000, and it provided an opening wedge for Power in his case with the large land-holders.²³ In 1875, he arranged to have 1,280 acres of land broken on the Cass-Cheney tract. During the same year he began an active campaign to gain soldier additional and half-breed script in order that these men might fill in their alternate-sectioned holdings.²⁴ This would enable the large-scale cultivation of a contiguous tract of land. The crowning achievement of Power's handling of the Cass-Cheney lands was his success in helping to secure an experienced large-scale wheat farmer to operate them.

General George Becker, president of the St. Paul and Pacific road, advised Power and Cass in 1875 to hire a capable manager for the Cass-Cheney tract.²⁵ Power and the two non-resident owners previously had considered placing Canadians from Ontario on this land as tenants, even though Power had pointed out that it would be necessary to build expensive improvements to attract these people.²⁶ In early 1876, the decision was made to secure one man to operate the entire tract of

1,280 acres. Oliver Dalrymple, an experienced wheat farmer from southern Minnesota and a friend of Power since 1857, was the person induced to take over for the crop year 1876.²⁷ The skill and success of this man had a significant effect upon agriculture in the Red River Valley. More than anyone else, he developed the methods of bonanza farming in this area. Between 1876 and 1886, he expanded the Cass-Cheney operations to the point where they were annually producing a small fortune for himself and his non-resident associates.²⁸

James B. Power kept detailed records of Dalrymple's work. His purpose was to find whether capital could be engaged as successfully in large-scale operations in wheat as it had been in cotton and sugar.²⁹ He also was concerned that all prospective agricultural settlers know the potential of Northern Pacific territory. With the help of the outstanding magazines and agricultural journals of the nation, Power made known to all of America the dramatic, colorful, and prosperous nature of the Cass-

²¹ Power to George E. Beebe, June 23, 1874.

²² James B. Power, "Bits of History Connected with the Early Days of the Northern Pacific Railway and the Organization of Its Land Department," *Collections of the State Historical Society of North Dakota*, 3:343-345 (1910). Power's correspondence from 1873 to 1878 contains numerous exhortations on his part to induce Billings and others to actually visit their holdings and to consider cultivation of them.

²³ *Ibid.*, 344.

²⁴ Power to W. K. Mendenhall, July 16, 1875. Mendenhall was an attorney in Washington, D.C. from whom Power constantly sought advice on federal land regulations.

²⁵ Power to George W. Cass, October 14, 1875.

²⁶ Power to Cass, October 27, 1875; November 16, 1875.

²⁷ Power to Cass, February 17, 1876; Power to Benjamin W. Cheney, August 9, 1876; Power, "Bits of History of the Northern Pacific Land Department," 345.

²⁸ Power MSS, *Letterpress Copybook, May-December 1878*, 270; Harold Briggs, "Early Bonanza Farming in the Red River Valley of the North," *Agricultural History*, 6:27-38 (1932).

²⁹ Power to Oliver Dalrymple, April 12, 1877; Power to the editor of *The Country Gentleman*, May 10, 1877.

Cheney-Dalrymple farm.³⁰ This widely publicized success of Dalrymple's work helped to change the entire nature of railroad land sales, agricultural development, and railroad operations in the Red River Valley between 1876 and 1886.³¹

The emergence of commercial agriculture in the Red River Valley coincided with extensive relocation movements of Canadian and American farmers, as well as with the immigration of thousands of European people to North America. Many parts of the trans-Mississippi West received large numbers of agricultural settlers in the period from 1870 to 1900. Between 1878 and 1884, however, the Red River Valley attracted more land seekers than any area of comparable size in North America.³² The price of wheat, sufficient rainfall, the existence of free public lands and reasonably-priced railroad land, letters from previous settlers, and extensive railroad advertising were all influential in attracting these newcomers; but more than any other factor, the success of bonanza wheat farming led them to the Red River country. Penniless Scandinavian immigrants, experienced Ontario farmers, wealthy Northern Pacific stockholders, and many more were dazzled by the prospect of raising one-dollar wheat on the alluvial soil of this valley.³³

The success of Dalrymple in 1876 helped to originate the first great influx of people into the Red River area. Settlement expanded so rapidly in Dakota Territory that land offices, railroad and government alike, could scarcely handle their business.³⁴ The extension of the St. Paul, Minneapolis and Manitoba road to the forty-ninth parallel in 1879 released the dammed-up surplus of crops in Manitoba and touched off a spectacular land rush in prairie Canada.³⁵ The Northern Pacific, the Manitoba, and the Canadian Pacific railroads could not expand quickly enough to keep up with settlement in the entire valley, and when these companies were able to build extensions in this area between 1879 and 1890, they found these branch lines to be among the most profitable of their entire systems.³⁶

In summary, the expansion of settlement and agriculture in the Red River Valley was speeded up by the energetic efforts of the Northern Pacific land department. At a time when thousands of people in Europe and America were seeking new land, James B. Power and Oliver Dalrymple dramatically demonstrated that the Red River Valley was a region that fitted their needs or provided a golden opportunity. What resulted in the separate national sectors of

³⁰ Power sent letters describing the Red River area and Dalrymple's operations to editors all over the nation. In some cases these letters were sent from Power's home address, and he posed as simply an "interested observer;" Power to Dalrymple, April 10, 1877; Power to the editor of the New York *Tribune*, May 10, 1877.

³¹ Briggs, "Early Bonanza Farming in the Red River Valley of the North," 27-28; Bertha Heilbron, "A British Agricultural Expert in the Red River Valley, 1879," *North Dakota Historical Quarterly*, 7:106-107 (1933); Coulter, "Industrial History of the Red River Valley," 582; Hedges, "The Colonization Work of the Northern Pacific Railroad," 328.

³² United States Commissioner of the General Land Office, *Report[s] of the Commissioner of the General Land Office to the Secretary of the Interior for the Year[s]: 1871-1891*. A detailed study of land entries and land sales at the various land offices throughout the United States between 1871 and 1891 shows the heavy influx of settlers into the Red River Valley from 1879 to 1884.

³³ Marcus L. Hansen and John B. Brebner, *The Mingling of the Canadian and American Peoples* (New Haven, 1940), 178-192; Carleton C. Qualey, "Pioneer Norwegian Settlement in North Dakota," *North Dakota Historical Quarterly*, 5:16-26 (October, 1930); Coulter, "Industrial History of the Red River Valley," 594-596; Power to George Stark, September 11, 1876.

³⁴ Harold E. Briggs, "The Great Dakota Boom, 1879-1886," *North Dakota Historical Quarterly*, 4:78-98 (January, 1930).

³⁵ Hansen and Brebner, *The Mingling of the Canadian and American Peoples*, 190-192.

³⁶ St. Paul, Minneapolis and Manitoba Railway Company, *Second Annual Report to the Stockholders, 1881*, 8; Northern Pacific Railroad, *Annual Report[s] of the Board of Directors and the President to the Stockholders, 1879-1890*; James J. Hill, *The Great Northern and the Northwest* (Hill's letter to the stockholders on retirement from the chairmanship of the board of directors), 6-8; James Wickes Taylor, "Consular Reports from Winnipeg, 1888-1889," *Commercial Relations of the United States with Foreign Countries During the Years 1888 and 1889*, pp. 289-293.

this valley was neither the "Manitoba Boom" of Canadian history or the "Dakota Boom" of the early 1880's. It was, rather, an international "Red River Boom"³⁷ that was to affect the entire prairie region of northern United States and Canada.

The Area of the St. Paul, Minneapolis and Manitoba. The success of bonanza wheat farms and the expansion of settlement in the late 1870's resulted in the rapid sale of nearly all the remaining Northern Pacific lands in the Red River Valley. After 1879, therefore, the activities of the Northern Pacific land department were concentrated in the area to the west of the valley.³⁸ In this same period, however, there had been relatively little occupation of the area granted to the St. Paul and Pacific road. This land was located on the Minnesota side of the river, and it extended from the southern end of the valley to the Canadian border. The soil in this part of the valley was equally as fertile as that on the Dakota side, but due to poor drainage and the lack of consistent rail service, this area had been ignored by settlers.³⁹ This situation did not change until James J. Hill and his associates organized the St. Paul, Minneapolis and Manitoba company in 1878 and inaugurated a vigorous campaign to colonize this unoccupied land.

The colonization work of the Manitoba road between 1878 and 1886 was formulated and carried out by two men, James J. Hill and James B. Power. Hill was always active in the more comprehensive job of building a railroad, but his concept of this task deeply involved him in land colonization work. A longstanding interest in agriculture was a prime force in his life; and he always felt that the fortunes of a railroad and the farmers that it served were closely related. Hill devoted himself, therefore, first to settling the Red River lands of his company, and then to promoting a program of diversified agriculture that would guarantee a stable income for both the farmer and the railroad.⁴⁰

James B. Power did not organize the Manitoba land department, for he was

employed by the Northern Pacific road until late in 1880. At that time, however, he was released by his employer as a result of a misunderstanding concerning his purchase and use of depreciated Northern Pacific stock. Power was much chagrined with the whole affair. He began an involved legal defense of his actions, and then accepted the offer of Hill to become land commissioner of the Manitoba road in 1881. Power held this new position until 1886, and he felt that Hill's offer did a great deal to exonerate him in the eyes of those who did not know the details of his dismissal from the Northern Pacific.⁴¹

Power brought to his new position a great wealth of colonization experience and an intense personal interest in the Red River Valley. He was already well versed on the subject of raising wheat, and in 1878 he began a personal experiment that enabled him to speak with authority about other possible developments in the agriculture of this area. In that year Power purchased a 6,000-acre tract of land southwest of Fargo on which to develop a livestock farm. This acreage was not composed entirely of the black alluvial soil for which the valley is so well known. Rather, Power purposely selected considerable land that was well suited for grass and hay production. By combining a good crop area with this pasture-and-hay tract, he hoped to prove the economic feasibility of more diversified farming in this valley. Power named his farm "Helendale," in honor of his wife, and developed it into a well-known showplace.⁴² His personal research and experimentation at Helendale were a vital part of his railroad colonization work in the valley between 1881 and 1886.

³⁷ Hansen and Brebner, *op. cit.*, p. 190.

³⁸ Power to Frederick W. Billings, July 27, 1878.

³⁹ Power to Frederick W. Billings, May 31, 1878.

⁴⁰ Pyle, *The Life of James J. Hill*, 361-375.

⁴¹ Power to H. E. Sargent, June 25, 1881.

⁴² Power to Charles F. Kindred, September 14, 1878; Power to Kindred, November 30, 1878; James B. Power to Will Power, March 31, 1885; St. Paul Minneapolis and Manitoba Railway Company, *Letters from Golden Latitudes* (St. Paul, 1885), 34.

The task of settling the land on the east side of the Red River was complicated by the fact that much of this area was poorly drained. The streams tributary to the Red River did not have well-defined channels; therefore, in the spring of the year, the surplus water in these rivers became diffused over large sections of the level valley. Power and Hill did not find a complete solution to this problem, for it could not be combatted by private individuals alone. They did, however, originate a drainage program that illustrated what could be done to improve the situation.

The first extensive drainage ditches constructed in the valley were not intended to aid in the settlement of land. The Manitoba road dug 45 miles of drains in 1879; the purpose of this project was to provide a run-off for the surplus water that threatened to undermine the roadbed every spring. These ditches were one-half to three miles in length, and they were approximately three feet wide at the bottom. This initial drainage project appears to have been a success, for the company purchased an expensive ditching machine and used it in further drainage work in the early 1880's. In addition, the construction of railroad drains seems to have stimulated private individuals to undertake similar projects on a smaller scale.⁴³

The men that first undertook to drain their own farms were the bonanza farmers on the Minnesota side of the Red River. This was a logical move on their part, for they owned extensive tracts of land and were financially able to undertake this work. For information and guidance in their drainage projects, these farmers turned to the land department of the Manitoba road. Commissioner Power was well acquainted with these men, and he shared with them all of the information that he was able to accumulate on this topic. He told them the exact cost of ditching equipment, the capabilities of the various machines, and the result of such projects on other farms in the valley. Power also followed this work carefully so that he could incorporate its achievements in the material he dis-

tributed to prospective purchasers of railroad lands.⁴⁴

These private efforts at drainage in the valley were steps in the right direction, but Hill realized that much more had to be done before any large tracts of land could be reclaimed for agricultural purposes. He was quick to cooperate with any movement for government-sponsored drainage work. When a convention was held to consider this topic in June of 1886, Hill volunteered to give \$5,000 to defray the expense of an accurate topographical survey of the valley area. The state government and the public were slow to accept a program of government-financed drainage; but when the construction of state ditches in the valley was begun in 1893, Hill contributed an additional \$25,000 to expedite the project.⁴⁵ Considering the fact that the Manitoba road owned considerable acreage in the area to be benefited,⁴⁶ the company could well afford to donate the money. On the other hand, Hill provided similar sums to North Dakota projects in areas where the road owned no land.⁴⁷ He simply wished to develop the entire valley as completely as possible, and land drainage was an essential part of this work.

The promotion of diversified farming was another vital contribution of Hill to agricultural development in the Red River Valley. He and Power did not establish this movement on a widespread scale in their time; but, as in the case of land drainage, they illustrated what could be done and helped to stimulate interest in this subject. Their original interest in live-

⁴³ Benjamin W. Palmer, *Swamp Land Drainage with Special Reference to Minnesota* (Bulletin of the University of Minnesota, *Studies in the Social Sciences*, No. 5 [Minneapolis, 1915]), 64-69; Power to Joseph Dilworth, February 21, 1882.

⁴⁴ Power to Joseph Dilworth, February 21, 1882; Palmer, *op. cit.*, 66, 69, 64.

⁴⁵ Palmer, *Swamp Land Drainage with Special Reference to Minnesota*, 66, 69.

⁴⁶ 1,055,802 acres in 1882.

⁴⁷ A. L. Fellows, *Second Biennial Report of the State Engineer to the Governor of North Dakota, for the years 1905 and 1906* (Public Document No. 18 of The Public Documents of the State of North Dakota, 1906, II [Bismarck]), 82-83.

stock feeding and diversified agriculture grew out of their own farming operations. Fortunately, their personal interest and experience could be applied to the problems they faced in colonizing the eastern sector of the valley.

Bonanza farming in eastern Dakota reached its peak of development between 1876 and 1890.⁴⁸ During this period, several large-scale operations were also located on the Minnesota side of the Red River. Hill, himself, created a 7,000-acre establishment, known as the Northcote Farm, near the Canadian border. These large farms, however, were more the exception than the rule in the Manitoba land grant area. The stockholders of this road were not able to exchange depreciated securities for large tracts; and as the price of wheat dropped in the 1880's there was little incentive to operate land on a large scale.⁴⁹ This turn away from larger operations gave Hill and Power an opportunity vigorously to promote diversified agriculture in the entire valley between 1881 and 1890. They promoted it both as a means to conserve the fertility of this area and to create a more stable traffic for the railroad over the years.⁵⁰

Power and Hill used every available means to advance their program of diversification. A very significant part of their work was the research in livestock feeding carried out on their own farms. By 1885, Power had 230 cattle, 75 horses, 250 sheep, and 130 hogs at Helendale. Thirty of the cattle were purebred Shorthorns, his sheep were all graded Cotswolds, and he was experimenting with Berkshire hogs. In the winters of 1884-1885 and 1885-1886, Power carried on an extensive feeding program to test the comparative value of various grain feeds.⁵¹ He had his men weigh each animal when it came off summer pasture into stall feeding, and the daily portion of feed given to each animal was carefully recorded.⁵² Power perused every available livestock journal for additional help in his work, and he was in constant contact with other farmers who were engaged in livestock operations.

Hill's experimentation work was even more extensive than that of Power, for he had two farms on which to operate. His North Oaks place near St. Paul was utilized for a breeding program, while Northcote Farm in the valley was the site of large-scale feeding operations.⁵³ In a very real sense, these private efforts of Hill and Power between 1880 and 1890 are comparable to the programs of present-day agricultural experiment stations.

In the years between 1881 and 1895, the land department of the St. Paul, Minneapolis and Manitoba railroad privately carried out many of the functions of a present-day agricultural college extension service.⁵⁴ Power's correspondence in the 1880's is filled with inquiries and replies relative to the cost of dairy equipment, the availability of seed in this area, the comparative merits of different breeds of livestock, and formulas for feeding beef cattle. Power wrote that both newcomers to the Red River Valley and people already established there looked to his office for information of this kind.⁵⁵ Hill organized whole trainloads of farmers to attend state agricultural institutes, and he transported

⁴⁸ Briggs, "Early Bonanza Farming in the Red River Valley," 27, 36.

⁴⁹ *Ibid.*, 36-37; Coulter, "Industrial History of the Red River Valley," 609-620.

⁵⁰ Pyle, *The Life of James J. Hill*, 362-363.

⁵¹ There was very little corn grown in this area until after 1895.

⁵² St. Paul, Minneapolis and Manitoba Railway Company, *Letters from Golden Latitudes*, 34; James B. Power to Will Power, September 16, 1885, November 6, 1885, November 10, 1885.

⁵³ Pyle, *The Life of James J. Hill*, 364-365; St. Paul, Minneapolis and Manitoba Railway Company, *The Red River Valley, the Eden of the Northwest*, (St. Paul, 1887), 3-17.

⁵⁴ The North Dakota Agricultural College was founded at Fargo in 1891, and in that same year the Minnesota Experiment Station began to test wheat in the Red River Valley. Four years later, the Minnesota station established a sub-station (Crookston) in the Valley upon land given to it by James J. Hill.

⁵⁵ Power to C. L. Kneeland, May 4, 1885.

⁵⁶ James J. Hill, "History of Agriculture in Minnesota," *Minnesota Historical Collections*, 8:284 (1895-1898).

them at railroad expense.⁵⁶ Power and Hill alike were in demand as speakers at these same institutes.⁵⁷ In the advertising material sent to potential purchasers of railroad lands, Power stressed heavily the successful experimentation in livestock feeding, crop rotation, and dairy operations undertaken both by farmers in the Red River Valley and by agricultural scientists all over the United States.⁵⁸

It is difficult to assess the effect of the extensive work undertaken by Power and Hill before 1890. When grain prices were high, few people in the Red River Valley were interested in diversified farming or crop rotation. James J. Hill expended thousands of dollars to distribute nearly 800 pure-bred Shorthorn and Polled Angus bulls to farmers in the valley between 1882 and 1890; yet many of the recipients of these prize animals sold the resulting calves as veal.⁵⁹ Dairying did not become widespread in the valley until after 1900, and in that year one-half of the Red River area remained unincorporated into farms.⁶⁰ Still a slow beginning had been made in this period toward the more diversified economy now found in this region. The increase in the number of livestock in the valley between 1880 and 1890 was twice as great, proportionately, as the area's increase in population during this same period.⁶¹ Furthermore, the selection of Power to act as the second president of the North Dakota Agricultural College in 1893 indicated some appreciation of his ideas, while Hill's role in the White House Conservation Conference of 1908 constituted national recognition of the latter's efforts in the cause of scientific agriculture.

This analysis of agricultural development in the Red River Valley before 1890 has not included a great deal that needs to be known about the land grants of the Northern Pacific and the present-day Great Northern railway companies. Furthermore, the relationship between railroads and farming in this area does not end in 1890. Additional research on the agriculture of

this region, and the forthcoming work of Muriel and Ralph Hidy on the history of the Great Northern railroad will add valuable material on the economic history of the valley.

The events of the period from 1870 to 1890 do indicate, however, that there are unusual features in the Red River story. The initial role of railroads in opening this area to commercial agriculture, the relation of James B. Power to bonanza farming, the tremendous immigration to this valley between 1878 and 1884, and the extensive efforts of Power and James J. Hill in promoting agricultural change in this region constitute an important chapter in railroad colonization history. In addition, not only was the settlement of the valley greatly stimulated by the expansion and activities of two railroads, but this area richly rewarded the Northern Pacific and the St. Paul, Minneapolis and Manitoba systems as well. Without disregarding the advantages of good soil, unusual men, adequate rainfall, and the like, the story of the Red River Valley is another step toward formulating a conclusive answer to the question of railroad land grants and their role in the economic development of the trans-Mississippi West.

⁵⁶ Pyle, *The Life of James J. Hill*, 368-369; Power to C. P. Bailey, August 31, 1885.

⁵⁷ St. Paul, Minneapolis and Manitoba Railway Company, *Red River Valley, Eden of the Northwest*, 3-17. Similar promotional bulletins were issued constantly throughout the 1880's.

⁵⁸ Coulter, "Industrial History of the Red River Valley," 615-626; Pyle states that anti-railroad politicians baited the farmers against Hill's work. These men implied that Hill was attempting to undercut the wheat economy. Pyle *The Life of James J. Hill*, 371-373.

⁵⁹ Earle D. Ross, "Extension of Dairying to the Last Frontier," 419-424, in Louis B. Schmidt and Earle D. Ross (editors), *Readings in the Economic History of American Agriculture* (New York, 1925), 420-422; Coulter, "Industrial History of the Red River Valley," 531.

⁶⁰ Coulter, "Industrial History of the Red River Valley," 623-624; *United States Census Report, 1880*, 3:145-146, 158-159; *United States Census Report, 1890*, 5:253, 261, 293, 301-302, 334, 342.

The Burlington Railroad and Agricultural Policy in the 1920's

C. CLYDE JONES

During the 1920's, the federal government heard the pleas of farm-state politicians that agriculture needed help. Congress tried to solve the "farm problem" in the 1920's by considering, and at times adopting, various schemes and devices. In doing so, the government deserted its traditional position of allowing agriculture to work out its own problems. Meanwhile, the Burlington Railroad sought to assist its farm patrons through education and self-help. The railroad's aid was part of a long-standing agricultural development program.

Most railroads have, at one time or another, encouraged the adoption of better and more profitable farming practices in their territories. Yet, historians have paid scant notice to the role of railways and other private concerns in agricultural progress since the Civil War. Everett Edwards' list of factors which caused America's agricultural revolution illustrates this lack of attention: (1) Abundance of good soil and a liberal federal land policy; (2) the Westward Movement; (3) mechanical innovations; (4) transportation developments; (5) growth of domestic and foreign markets; (6) rise of institutions for the promotion of scientific farming, such as agricultural societies, journals, fairs, and government agencies; and (7) political organizations designed to prevent farmers from being sucked into the "vortex of industrialism."¹ Edwards, and most other historians, simply omitted from consideration the contribution to farm progress made by business corporations, especially railroads. True, the railway historian has recognized this neglect, particularly in the case of the colonization scholars such as Hedges, Gates, Overton, Greever, and Bennett; however, their studies deal only indirectly with agricultural development

as a part of colonization activities. Mildred Throne's "Suggested Research on Railroad Aid to the Farmer with Particular Reference to Iowa and Kansas," a paper read before the Mississippi Valley Historical Association at Rock Island in 1948, called attention to the possible research opportunities. Even so, my own doctoral dissertation on the Burlington's program appears to be the only full-lengthed, detailed study of one company's efforts in this respect. The oversight has resulted in part from a lack of understanding concerning the nature of agricultural development work.

Railroad officials, whose lines serve farm areas, agree basically as to the motivation and objectives of agricultural development programs. In a sentence, the underlying philosophy is that "prosperous communities mean prosperous railroads." As early as 1872, the Land Department of the Burlington and Missouri River Railroad frankly declared, "It is not to be supposed that railroad corporations surpass all men in disinterested benevolence, but it is beyond question that they know their own interest, and so will take some pains to help you earn a dollar whenever they can thus make two for themselves."² Much more recently a president of the Baltimore & Ohio, R. B. White, reiterated the same sentiment when he said that "the Railroad's interest in problems of the farm is not prompted by any philanthropic motive, but purely because we believe it good business to take an active interest in what

¹ Everett E. Edwards, "American Agriculture—The First 300 Years," U. S. Department of Agriculture, *Yearbook, 1940* (Washington, 1940), 221-222.

² Richard C. Overton, *Burlington West: A Colonization History of the Burlington Railroad* (Cambridge, Mass., 1941), 339.



Nebraska State Hist. Soc.

Farmerettes at Humboldt, Nebraska, 1926

the territory we serve produces. The wisdom of such a policy is indicated in the greatly increased traffic of farm supplies and farm products . . .¹³ Toward the goals of such "enlightened selfishness," American roads have worked continually since about 1850. The details of the various programs naturally differ, but the over-all approach is basically the same. Company officials have generally sponsored any measure which would tend to make its farm customers more prosperous.

The Burlington's program is fairly typical. Actually, it is one of the oldest in that it has evolved steadily since the earliest history of the company. The first stage in its agricultural program was from the 1850's to 1895, as the Land Department of the Burlington provided various assistance to settlers in Iowa and Nebraska. The second phase lasted down to World War I and might best be characterized by the term "transitional;" the early aid to

settlers and the general encouragement of better farming gradually shifted from the Land and Colonization agents into the hands of trained agricultural workers. This was so especially after the establishment of an Agricultural Development Department in 1913. After the war, the third and most prominent period began, highlighted by intensive educational campaigns. The economic collapse following 1929 altered substantially the methods employed by the company; although an agricultural development department is active even today, its work is only generally similar to that of the 1920's. This paper is concerned only with the third or "flood-tide" stage from 1923 to 1930.

The Burlington's agricultural program in the 1920's was a product of the times. Farm production had expanded substan-

¹³ Baltimore & Ohio Railroad Company, "Bumper Belt" (Baltimore, 1944), 2.

tially in response to the heavy demand for grain and livestock products during the war years; acreage harvested increased some 11 per cent between 1914 and 1919.⁴ Cattle and hog slaughtering rose by 35 and 20 per cent respectively in roughly the same years.⁵ Meanwhile, land and capital investments exceeded the bounds of "prudential restraint." Wheat growing especially encroached upon grazing lands west of the 98th meridian and upon the dairy regions of Iowa and Nebraska.⁶ The Burlington's recently-created agricultural department gave strong support to the federal government's plan to stimulate food production for the war effort and hence played a part in the resultant expansion. Under the stimulus of war, farm prices rose to previously unknown heights. But farmers were destined to enjoy their war-built prosperity only temporarily. Prices continued to soar for a year or more beyond the armistice of November, 1918, and then utter collapse of the price structure came suddenly in 1919-1920. Livestock prices broke first in late 1919 and reached bottom in 1922, falling to 61 per cent of the peak level. Crop prices followed, dropping in 1921 to 52 per cent of the 1920 high. Net income to farmers suffered even a greater loss; it fell from \$9.9 billion in 1919 to \$3.8 billion in 1921, only 39 per cent of the previous high.⁷

The reasons for and the consequences of the catastrophic price collapse of 1919-1920 are too well known to require extensive comment. In essence, the loss of markets, both foreign and domestic, created surpluses of staples which accordingly depressed prices. The drop precipitated a general business depression, not at all unexpected, which ran its course by the end of 1922. The seven years which followed were, on the whole, years of unparalleled prosperity; both real wages and real national income advanced steadily. Not everyone shared the blessings, however; the American farmer, for one, never entirely recovered from the post-war depression. Net farm income did rise sharply to \$6.9 billion by 1925, but even so the ratio of prices received to prices paid by

farmers stood at 92 (1910-14=100). Neither income nor parity exceeded the 1925 figures in the interim from World War I to World War II.⁸

The cause of the farm depression of the 'twenties was widely recognized as over-production. By definition, overproduction is producing more of a commodity than can be sold at a price sufficient to cover costs. There are a number of basic solutions to such a problem, all of which were thought of and put into practice at one time or another throughout our history. The most logical one, but the least likely under pure competition, is a reduction in output. Farmers and politicians alike recognized the obvious virtues of crop reduction in the 1920's but rejected it generally. Voluntary controls naturally were out of the question. The political and economic climate of the decade gave virtual immunity to the kind of governmental regimentation adopted in 1933. From the individual farmer's viewpoint, he could hardly be expected to restrict output in the face of low prices; farm mortgage debt had increased from \$4.7 billion in 1914 to \$10.2 billion in 1921.⁹ Interest on this and other indebtedness necessitated staying in business to avoid bankruptcy. Thus, reduction in output was completely unrealistic in the 1920's, and concerted efforts to create greater demand were sadly lacking.

Other possible solutions to the farm dilemma seek essentially to raise prices without cutting output. Serious thought has often been devoted to the role of cheap money, tariffs, and subsidies in supporting farm income; all of these devices received attention in the 1920's. Easier farm credit, higher import duties and crop price supports were tried and found wanting at one time or another. A remaining alternative

⁴ U. S. Bureau of the Census, *Historical Statistics of the United States, 1789-1945* (Washington, 1949), 98.

⁵ *Ibid.*, 102.

⁶ Earle D. Ross, *Iowa Agriculture* (Iowa City, 1951), 140-141.

⁷ *Historical Statistics*, 99.

⁸ *Ibid.*

⁹ *Ibid.*, 111.



Burlington Pork Production Special, Geneva, Nebraska, October 11, 1929

to crop restrictions (either voluntary or involuntary) and price-raising schemes appears to have received altogether too little attention on the national scene both before and after the Great Depression—namely, the simple process of cutting costs of production in order to maintain a margin of profit. This, of course, is the essence of a free enterprise system. A firm which can not keep its total costs at or below market price must eventually go out of business. Given a flexible society in which resources may be shifted from unprofitable to profitable endeavor, firms engaged in an industry plagued by over-production are reduced in number so as to alleviate any surplus problem. The most efficient units alone survive. These principles prompted Burlington officials to revise the company's approach to farm development.

Earlier efforts had nearly always been aimed toward increasing total output in order to increase freight tonnage. While freight revenues remained the chief concern of the company, the decline in farm prices and the surpluses of grain and meat products after 1919 required the shifting of emphasis away from higher production

in general. Yet, at the same time, the railroad could not afford to see total farm output reduced in its territory since losses in revenues would follow. Such reduction would not have raised the income of Burlington farmers anyhow, since only a nation-wide cutback could boost farm prices. Hence, the railroad turned to the establishment of a better cost-price relationship for its farm customers as a logical way to combat the ogre of overproduction. In its ensuing action, the Burlington employed a double-barrelled strategy: efficiency to lower costs and diversification to foster regional stability. The program was calculated to make farming more profitable in the company's territory.

The outstanding feature of the Burlington's program was the operation of special educational trains. The idea had developed around the turn of the century. The railroad ran seed corn specials in 1904 and again in 1912-1913, as well as alfalfa and dairy improvement trains in the latter year. The first World War and its aftermath curtailed the practice, but after 1922, the Burlington staged no less than 25 major educational campaigns, relying upon special tours to "spread the gospel of



Sugar Beet Demonstration

better farming." These were literally "agricultural colleges on wheels," since personnel from the various state colleges nearly always helped to plan and operate the trains. Generally, the specials followed carefully plotted routes, making one or more daily stops to enable residents of the area to view proceedings. The educational work consisted of lectures, exhibits and demonstrations (both in town and in neighboring fields); more often than not the company conducted extensive follow-up campaigns to keep new ideas before the farmers and to determine the impact of the tours on the region. The special trains called attention to many facets of farming, but for the most part the twin objectives of efficiency and diversification dominated the educational programming.¹⁰

Among the most popular of the special educational trains and campaigns were those devoted to livestock and dairy improvement, poultry development, and sugar beet growing. The livestock and dairy program was highlighted by at least three major endeavors: the 1923 Colorado Purebred Sires Special, the 1924 Nebraska Purebred Dairy Sires Special, and the swine sanitation campaign in Iowa and Nebraska in 1929. Poultry specials toured Burlington lines in 1926-1927, while the beet trains shared the spotlight in four of the five years, 1925-29. All of these demonstrate amply the railroad's concerted efforts to help the farmer lower costs and take advantage of alternative farming opportunities.

The first of the specials was that in Colorado in 1923. In that year, the Burlington invited the Colorado College of Agriculture, the Denver Union Stock Yards Company, the Denver Chamber of Commerce, and the purebred swine and cattle breeders' associations to participate in a project to promote better and more economical meat animal production among Colorado wheat farmers. The chief technique used to arouse interest was the arranging to trade purebred bulls and boars for scrubs in some 29 state towns. At each scheduled stop on the tour, agents located farmers who agreed to swap, on even terms, a mongrel bull or boar for a pedigree animal furnished by the breeders' associations. The train carried exhibits which extolled the virtues of high-grade stock. Visiting farmers competed in guessing the weight of a Poland China shoat, with cash prizes to the winner in each town. Local chambers of commerce and railway agents furnished advance publicity, while local committees on arrangements provided added attractions. Free barbecues, sporting events, parades, band concerts, merchants' sales, and farm shows appealed to farmers and their families, who regarded the train's coming as an occasion for a holiday in town. Schools often dismissed classes during the educational programs and staged essay contests among the pupils on some subject closely related to the theme of the campaign. Several towns held mock trials in which local farmers were convicted of harboring scrub bulls. The Colorado Purebred Sires Special attracted over 25,000 persons to whom more than 90,000 pieces of farm literature were distributed.¹¹

The following summer college and railway officials retraced the route of the special and called on the new owners of the purebreds. The inspection party sought

¹⁰C. Clyde Jones, "The Agricultural Development Program of the Chicago, Burlington & Quincy Railroad" (Ph.D. thesis, Northwestern University, 1954).

¹¹Chicago, Burlington & Quincy Omaha Agricultural Files, 73.1, "Colorado Purebred Sires Special."

particularly information concerning weight progress and the service records of the animals. It compiled much evidence to show the superiority of quality sires over mongrels in the matter of laying on weight. Three years after the initial tour, Burlington agents claimed an increase of about 12 per cent in the use of purebred sires in its Colorado territory.¹²

The Nebraska train was much like its Colorado predecessor. It was, of course, a part of the livestock improvement program; but it was even more so a part of a long-range dairy-development plan inaugurated in 1913. The campaign again featured the exchange of purebred and scrub stock. Other activities likewise resembled those of a year earlier in Colorado. The farmers of Sidney provided a novel twist by preparing an elaborate pedigree for their scrub bull. It reads as follows:

"This official document is intended to serve in a dual capacity, first as a bill of sale and a conveyance in fee simple, and also a pedigree to one red, white-faced semifull-blooded Hereford scrub bull, with an age of about three summers and as many winters but with a size and dimensions of a ten months' old dogie, whose mother died of starvation while he was yet an infant and whose unfaithful inbred father unceremoniously ran away with a nice young three-year old heifer.

"We warrant this bull to be an inbred calf.

His style and form will make you laugh.

He will take no prize at a livestock show,

But will eat and drink, and maybe grow.

"He was born by chance in a suspicious way;

His mother died, his dad ran away.

He's lousy as hell and somewhat thin,

But a damn good bull for the shape he's in."¹³

The Nebraska train attracted good crowds at nearly every stop, with more

than 71,000 persons actually passing through the train. Val Kuska, Burlington agent at Omaha, guessed that no fewer than 135,000, or about 10 per cent of Nebraska's 1924 population, were present at one time or another. In the wake of such enthusiasm, a ring of dairy cow "bootleggers" palmed off at least four carloads of inferior Texan stock on unsuspecting Nebraska farmers; the "scalpers" peddled their heifers as full-blooded dairy cows. As in Colorado, a follow-up survey team attempted to measure results. Official railroad and college reports, based on reasonably authentic sources, contended strongly that the campaign in Nebraska was a success. One agent declared in 1926 that the butterfat content of milk increased by 37.5 per cent in the area covered by the special and showed that the number of cow-testing stations rose from two to ten. Furthermore, the purebred bulls served 995 cows and sired 503 calves in the first two years.¹⁴

The swine sanitation campaigns in Iowa and Nebraska in 1929 gave equally good results in the eyes of Burlington officers. The swine program was based upon an elementary cost-cutting principle. Farmers were generally careless in swine-raising and regularly lost a number of baby pigs through disease. The railroad, with a major assist from the state agricultural colleges, sought to educate its farmers to eliminate needless losses, thereby increasing the ratio of pigs raised to pigs farrowed. Of course, higher pork production would merely depress further an already glutted market, and accordingly the campaign planners advocated no increase in total number of pigs raised. Rather, they proposed a reduction in the number of brood sows. In this way, the same number of pigs could be raised from fewer litters; the savings in care and feeding of sows meant lower production costs.

¹² *Ibid.*; O. O. Waggener, "Westerner Agriculture and the Burlington" (Chicago, 1938), 44.

¹³ Chicago, Burlington & Quincy Omaha Agricultural Files, 73.3, "Nebraska Purebred Dairy Sires Special."

¹⁴ *Ibid.*

The swine program revolved around the clean-pasture method of hog raising and breeding, developed in McLean County, Illinois, by the United State Department of Agriculture and promoted by the Baltimore and Ohio special train in 1927. The state colleges of Iowa and Nebraska prepared much of the educational materials and exhibits. Nearly 150,000 persons, two-thirds of whom were Nebraskans, visited the trains at some 96 stops. Nebraska's Governor Arthur J. Weaver dedicated the "Profitable Pork Production Special" in Lincoln, aided by a University co-ed who christened the train with a bottle of pure lard, specially prepared for the occasion in the laboratory of the agricultural college. Afterwards, the Lincoln Chamber of Commerce sponsored a luncheon in order to express its gratitude to the college and to the railroad; naturally, the entrée was roast pork.¹⁵

Follow-up studies in Iowa and Nebraska revealed an increase of from 5.5 to 5.8 pigs raised per litter in Iowa and to 5.9 in Nebraska in 1930. The University of Nebraska estimated that a farmer could expect to cut costs by \$268 annually through the use of sanitary swine raising methods.¹⁶

The livestock improvement campaigns emphasized efficiency in beef and pork production, but they also pointed toward greater diversification for Burlington area farmers. Toward this second objective, the railroad sponsored programs to encourage better poultry raising in 1926-1927. Two separate tours developed. The first served 98 towns in Nebraska and Kansas in 1926, while the next year, a second stopped at 77 stations in Colorado, Wyoming, New Mexico, South Dakota, and Montana. Something over a quarter of a million persons saw demonstrations and exhibits and heard lectures; some 80 per cent of the total attendance was accounted for on the 1926 tour. In all probability, the Nebraska-Kansas response was so much heavier because of better weather, more careful advance planning and publicity, and the fact that the 1927 train operated through some sparsely settled regions. The

Burlington was well satisfied with the results of both endeavors.¹⁷

The primary technique used in the Nebraska campaign was to teach farmers how to raise the quality of their poultry and egg output. Culling demonstrations, designed to eliminate "free loaders from the hen house," apparently succeeded admirably. Farm reports from 42 Nebraska communities showed that weekly egg production dropped only 11 per cent while farmers culled 31 per cent of their hens from their flocks in 1926. Thus, they fed nearly one-third less chickens, bringing a considerable saving to farmers. The Burlington shops built a "talking rooster," named "Jiggs", in a special effort to attract interest. "Jiggs" was a large canvas reproduction with a loud speaker mounted inside. He became so popular that he was borrowed for use at a number of county shows and even for the Nebraska State Fair in 1926 and 1927. Other features of the tour included, sanitation and disease control, poultry marketing ideas, and general poultry management. In spite of the fact that the *Fairbury Journal*'s editor inferred that the railroad and college men were city-slickers and "couldn't tell a hen from a turkey gobbler," the Nebraska Poultry Special was well received. So was the Better Poultry Special of 1927, which differed from the earlier train only in certain respects. Great attention was devoted to turkey raising and marketing, especially for the Wyoming and Colorado farmers, and more emphasis was placed on the superiority of high-grade stock over mongrel flocks.¹⁸

While the poultry and swine campaigns were in progress, the Burlington also stimulated interest in sugar beet production in its territories. Beets had been produced in the West long before the Burlington's

¹⁵ Chicago, Burlington & Quincy Omaha Agricultural Files, 73.24, "Burlington Pig Crop Special (Iowa)," and 73.25, "Profitable Pork Production Special (Nebraska)."

¹⁶ *Ibid.*

¹⁷ Chicago, Burlington & Quincy Omaha Agricultural Files, 73.6, "Nebraska Poultry Special," and 73.15 "Better Poultry Special."

¹⁸ *Ibid.*

first campaign in 1925, but returns to farmers were never high. From 1925 to 1929, the railroad operated four specials, mostly in the Great Western Sugar Company territory, in an effort to promote expanded acreage and more profitable beet culture. The sugar company, as well as state colleges in Nebraska, Colorado, Wyoming, and Montana, joined the Burlington in the enterprise. The educational tours stressed ideas such as better seed-bed preparation, proper planting times, careful blocking and thinning, and exact spacing of plants. All of the methods had been rigorously tested on the Longmont, Colorado, test plots and were known to produce higher per acre yields. In 1930, after six years had elapsed, Great Western territory acreage increased 65,000 over the 1915-1925 average of 200,000; average yields rose by 2.05 tons per acre. The beet farmers added nearly four million dollars gross revenue with little additional monetary expenditure; the Burlington gained more than \$600,000 annually in gross freight receipts.¹⁹

It would serve no basic purpose to continue to examine details of the educational campaigns. The basic approach was always the same and the specials were always well attended. The railroad officials generally felt that the main purposes of each campaign were largely accomplished. Lengthy reports, filled with statistical evidence, presented reasonable proof that Burlington meat, dairy, poultry and sugar beet producers earned higher profits after the tours. Such contentions, of course, can not be supported by incontrovertible facts. The end results of such educational efforts defy accurate measurement, owing to the complexities of causal factors in agricultural progress. The Burlington's figures, as well as those of the colleges and co-

operating agencies, can only suggest that farmers benefited. On the whole, however, there can be little doubt that the campaigns influenced the qualitative and quantitative nature of farming in Burlington territory. As to whether or not the individual farmer was better off, one can only surmise. Unfortunately, the economic collapse of 1929 and the subsequent depression robbed the Burlington of the chance to evaluate its program over the long-run. The Great Depression brought the curtailment of the expensive and elaborate special trains and caused the railroad to settle down to a less spectacular, but equally dedicated, campaign to promote better farm management, to locate better markets, to improve soil resources, and to increase the use of irrigated lands in the regions of uncertain or inadequate rainfall.

In summary, the Burlington tried to solve the "farm problem" in its territories through a program of self-help to farmers. By teaching cost-reducing and diversification techniques, the company sought to make its farmers more efficient and hence more able to survive the chronic depression of the 1920's. The program was based clearly on the traditional concepts of a free-market economy, which holds, among other things, that resources must be free to shift from uneconomic uses to more remunerative pursuits. In this respect, the Burlington's Agricultural Development Department was enlarged to include an industrial development program and the title changed accordingly. The company now helps industries to locate within its area and strives to insure that businesses prosper and survive along with farmers.

¹⁹ Chicago, Burlington & Quincy Omaha Agricultural Files, 73.11, 73.14, 73.23, and 73.8, "Sugar Beet Campaigns, 1925 to 1929."

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Compiled by E. M. PITTINGER

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History Recorded by the Camera Eye:

A chapter of livestock history which began with Henry Clay's importation of three Hereford cattle from England in 1817 is shown coming to a close *below*, with 23 Polled Herefords boarding a Pan American Airways plane to be flown from America to Great Britain. During the 19th century, thousands of Herefords were imported by American breeders; all these animals were horned, the product of years of scientific breeding in Britain. As the breed developed in this country, a few mutations appeared without horns. Through efforts of Warren Gammon and others, a foundation herd of four polled bulls and seven cows was assembled in 1901 to form the Polled Hereford strain. Now 23 descendants have been shipped by air to the breed's homeland to start a new herd in that traditional stud stock center of the world.

On following page, *above*, is a bright and shiny high-wheeler "auto-wagon," brought forth for the cameras by International Harvester by way of celebrating the company's 50th anniversary of manufacturing farm trucks. This 1907 model boasted a 20-horsepower, air-cooled engine of two cylinders, and could make a top speed of 20 miles per hour. For the following eight years all models were right-hand drive.

On next page, *below*, an overhead view of Pioneer Village at Minden, Nebraska, which in 1957 celebrated its fourth anniversary. Although one of the newest historical restorations in the nation, its planner, Harold Warp, has already won awards from the American Association for State and Local History and American Pioneer Trails Association. Pioneer Village features an agricultural museum and a country store authentic to the last detail.



History Recorded by the Camera Eye (continued)



Book Reviews

Farmer in a Business Suit. By JOHN H. DAVIS and KENNETH HINSHAW. (New York, Simon and Schuster, 1957, x, 241 pp., \$3.50.)

This book is the first to give expression to a new philosophy of agriculture. Politicians, farmers and businessmen who sell to, buy from or process the products of the farm still long for the good old days. But, they are gone forever because agriculture is being remade in the image of the industrial revolution.

The sharp contrasts between the farm and the city—between the farmer and his city cousins — no longer exist. Instead, we find a widening transition zone which involves not only a way of life but also the production and distribution of food and fiber.

Farm life is becoming more like the city and progressively city dwellers and city business are moving to the country. An integrated rural-urban economy is emerging for which the authors have coined the word "agribusiness". By definition, agribusiness includes all those factors on and off the farm which are involved in the production, processing and distribution of the products of agriculture.

The first eight chapters of the book make up a vivid, moving story of the transition from the Earthbound Era of self-sufficiency and muscle power to the dawn of the Agribusiness Era and a generation of farmers dependent upon machines and the products of industry. The story is staged on our last land frontier in the State of Washington, but the struggle and the heartache were those of farmers throughout the width and breadth of the land. "For two decades — approximately between 1920 and 1940 — farmers were overwhelmed by problems and hardships that marked the beginning of the end of the Earthbound Era and the start of a new era in which business closely related to agriculture outgrew farming's contribution to the nation's economy."

To my mind, the climax of the book is found in this paragraph:

"In general, the spokesmen for major economic interests — including farm leaders, businessmen, public officials, and even professional experts — have been slow to comprehend the magnitude of the evolutionary forces which are converting agriculture into agribusiness and farm problems into agribusiness problems. They have been slow to recognize the inevitability of the changes which are inherent in the application of improved technology—changes in such factors as the size of unit, organization, managerial competence, technical skills, capital requirements, and market potentials. They have been prone to view maladjustments as temporary deviations from normal rather than as fundamental changes which will make the future unlike the past and which, accordingly, necessitate a constant re-evaluation of our food and fiber policy, taking into account all related functions, whether performed on or off the farm. Thus, a major factor limiting balanced progress and economic growth in the food and fiber phase of our economy has been the absence of a comprehensive well-defined and well-balanced agribusiness policy."

The last 5 chapters of the book present the author's concept of a solution to the farm problem. It is in these final chapters that major areas of differences between farm leaders began to be expressed. The authors leave no doubt about the fact that they anticipate a continuing growth in the size of the farm enterprise and need for a closer working relationship between the farmer and the businessman.

To keep the old home farm together and help satisfy the capital requirements of a growing business, the family farm of the Yeomans (principal story characters in this book) is finally incorporated because, "Incorporation would serve to keep the whole farm intact and avoid forcing a young farmer to go deep in debt . . . Farm-

ing's not up to par unless it can earn a good living for the operator's family as well as earn additional capital to increase the size of the operation about 1 per cent per year."

A form of contract farming built around a farmer cooperative organization and adapted for each type of farming or each farm product is visualized as providing a solution to the farm problem. The production of quality pork for a specialty trade is used to illustrate a system of integrated operation already well established in the broiler production field. "This comprehension of the integrated relationship of agriculture and business helps private enterprise direct its efforts in making sounder, faster progress toward a prosperous, expanding economy." This idea sounds strangely like current talk of a new commodity-by-commodity approach to the farm program.

Within the agribusiness concept, "Farming is an incomplete part of a bigger unit . . . The challenge is to live and help others live on a higher standard than past generations have experienced." The authors conclude that, "We can make farming as prosperous as the rest of the economy."

This book has been written out of a lifetime of experience on the part of the co-authors, Dr. John H. Davis and Kenneth Hinshaw. Only those who lived through the 20-year metamorphosis that changed agriculture from an Earthbound Era to the Agribusiness Era could have so related the history and human drama of this struggle.

Dr. Davis served as Assistant Secretary of Agriculture on Benson's staff in Eisenhower's first administration. During part of that time, Davis was president of the CCC (Commodity Credit Corporation). He knows the farm problem both from inside and outside the Washington scene. Now, as a Harvard University professor in the Graduate School of Business Administration, he teams up with the journalist Kenneth Hinshaw. Hinshaw is in charge of publications and public relations for the Eastern States Farmers' Exchange.

Cooperating in this entire project is the

Foundation for American Agriculture, whose board of directors is made up of many of the big names in farmer cooperatives, farm organizations and such agriculturally centered businesses as commercial feed and farm machinery manufacturers.

Earl F. Crouse
Doane Agricultural Service, Inc.

The New Revolution in the Cotton Economy. By JAMES H. STREET. (Chapel Hill, University of North Carolina Press, 1957, 294 pp., \$5.00).

By combining a good historical treatment with sound economic analysis, Professor Street has written one of the best books available on the cotton industry and its problems. The theme and emphasis of this study are the rapid changes which have been, and still are, taking place in American cotton production. The author sets the stage for his discussion of mechanization with an excellent 88-page essay which deals chiefly with cotton and its problems between the Civil War and post-World War II. In this section the South as a "backward area," cotton farming as a distress industry, and the effect of World War II on the cotton industry are discussed.

Part I of the book is mostly background for the study's central theme of mechanization of cotton production and the resultant economic and social consequences. The book's outstanding contribution is found in the chapter where the author discusses the mechanization of the cotton harvest. Drawing on the files of farm machinery manufacturers, contemporary magazine accounts, and the researches of various state experiment stations, Professor Street presents an authentic and interesting history of the long struggle to produce a successful cotton picker. He then discusses the development of other types of machinery and shows how these machines, when combined with a mechanical cotton picker, have completely mechanized cotton production in some areas.

After considering the development and growth of mechanized cotton farming, the

author evaluates the social consequences of mechanization. Here he deals with population, labor, and tenure problems. The social adjustment which has accompanied the revolution in cotton production is evaluated, although Professor Street does not attempt to answer the perplexing question of whether machines drove workers off the land or whether workers left voluntarily, thereby requiring producers to mechanize in order to meet the labor shortage. He shows that these trends were working simultaneously and correctly concludes that "cause and effect relationships are difficult to establish."

Besides a good discussion and analysis of mechanized cotton production, this book has a number of other fine features. There are 32 halftones which take the viewer from one-horse cultivation and hand picking through the latest mechanical advances, including airplane dusting for insects and mechanical harvesting. An excellent bibliography on the technical aspects of mechanizing cotton production, as well as on other phases of the cotton industry, is included. There is also a good index. This book should be studied by cotton farmers, cotton-state politicians, and others who are concerned with problems related to cotton growing in the South and West. The author tends to take a one, two, three approach which is clear and concise for the specialist, but the book will be slow going for the general reader. It is a good study for reference use. It is to be hoped that this book will stimulate other writers and researchers to delve more deeply into various aspects of the history of agricultural mechanization. This is a field of agricultural history which has been too long slighted.

Gilbert C. Fite
University of Oklahoma

The Cokers of Carolina: A Social Biography of a Family. By GEORGE LEE SIMPSON, JR. (Chapel Hill, The University of North Carolina Press, 1956, viii, 327 pp., \$5.00.)

In a book with a title suggesting a gen-

ecological study, Professor Simpson has produced a scholarly history of a South Carolina family which emerged from relative obscurity a little more than a century ago to achieve great social and economic significance.

The story begins in 1830 when Caleb Coker, Jr., then a general merchant to cotton planters in the Darlington District, somewhat outdid himself by taking to wife Hannah Lide. By 1860 Caleb Coker was still essentially a storekeeper, but he had acquired a large equity in the cotton economy and he was a master of more than a hundred slaves. He gave a college education to each of his sons, three of whom served in the Confederate army. The youngest of these was killed at Malvern Hill. The other two, James and William, emerged from the conflict as a major and captain, respectively. It is around these two Confederate veterans and their children that the main story revolves.

Seeking to improve a deteriorating southern economy, the Cokers turned to the development of industry, beginning in the 1880's with textiles. The Coker name came to be identified with banking, cotton buying, the building of a railroad, cotton seed oil, fertilizer, pulpwood manufacturing, and the breeding of pedigree seed. To meet a local need a boarding school for girls was established at Hartsville in 1894 which later became Coker College. In addition to their contribution to the business and agricultural life of the state, the Coker family produced a long list of distinguished scholars.

The Cokers were the first to convert southern pine chemically and in commercial quantities into paper. To find a profitable outlet for this coarse paper they began to make tubes for textile winding. They became the largest manufacturers of paper cones in the world.

It was James Coker, Jr., known as the Major, who interested himself in agricultural experimentation as early as 1860. His son, David R. Coker, in the spring of 1898 resumed his father's experiments which had been cut short by the war. Convinced of the unprofitable aspects of cotton

growing with its leaching soil and its colonial economy, he sought to establish a new framework for agriculture in the South. For his community he developed a specialization in long staple which he bred on his seed farm. He encouraged farmers to devote half their land to this and the other half to corn, oats, and food production. In 1915 he turned to breeding short staple cotton to combine early maturity, high productivity, uniformity, and high oil content. This breeding came to a climax in 1926 when the "Cleveland Five" was introduced. By 1932 over sixty per cent of South Carolina cotton was said to be of good inch staple, thus adding about one cent per pound to the grower.

David Coker lived to see the independent farmer, to whose cause he had dedicated his life's work, pass almost completely out of southern agriculture. By the time of his death in 1938 the destiny of the farmer had passed from semi-public hands like his to the bureaucratic structure at Washington.

The book is a valuable addition to the bibliography of southern agriculture and particularly to the more recent history of cotton economy. It provides the reader with a keen insight into the vast dimensions of that matted and tangled economy to which the fate of merchants, bankers, manufacturers, and even southern professional men has been tied. The unifying thread of the story is the unusual ability of the Cokers to analyze intelligently and to solve with practical wisdom the many diverse problems which stemmed from the South's heritage of war, reconstruction, and a one-crop economy.

James C. Bonner
Georgia State College for Women

Eli Whitney and the Birth of American Technology. By CONSTANCE McLAUGHLIN GREEN. (Boston, Little, Brown and Company, 1956, vii, 215 pp., \$3.50.)

The pleasant, easy style of this short biography belies the fact that the book is the product of some 15 years of painstaking research. One gets the impression that

Miss Green enjoyed every moment of it, however. She consulted not only the Whitney papers in the Yale library but the papers of many other prominent persons with whom Whitney corresponded. She also made herself very familiar with the state of technological development of Whitney's time so that she explains clearly the difficulties that he faced. Other good books have been written on Eli Whitney but none reproduces the spirit of his times any better or describes more lucidly the problems that he faced.

Whitney made his fame in inventing the cotton gin. But he and his partner made three mistakes in handling that invention. At the outset Whitney talked too freely of his basic principle which was so simple that any mechanically minded listener could apply it. That made imitation easy. The partners asked too high a fee for ginning — 40 per cent of the cotton. For various reasons they were unable to turn out gins fast enough for the South whose "men looked upon the gin as the key to economic survival." Miss Green explains their pirating of the invention thus, "A hundred and fifty years later, had the doctor who had developed poliomyelitis serum insisted that children receive only injections prepared in a laboratory from which he drew the profits, public indignation would have run as strong (p. 95)." Yet the result was that the South cheated Whitney and Miller of what should have been handsome profits for a great contribution. The two men were fortunate to make even partial recovery in the courts.

Although Whitney is best remembered for the cotton gin, his greater contribution to American economic progress was the development of the principle of interchangeable parts in the manufacture of firearms. It should be emphasized that he was secondarily a maker of guns; his primary aim was to demonstrate the practicability of this principle of interchangeability of parts which later became such an important characteristic of American industry. It was this pre-occupation with the underlying principle that set him apart from other mechanics who made occasional

use of machine tools. He took out no patents on his machine tools (partly out of disgust, after his cotton gin experience), and for that reason later generations have overlooked his contributions. Yet Miss Green says of only one of these, which he invented later in his life, "the man who invented the miller in 1818 was a greater benefactor to his country than the inventor of the cotton gin itself (p 170)."

Whitney took no interest in political affairs and was on good terms with prominent men in both parties. He appears to have had no conception of the far-reaching implications of his cotton gin. Indeed he would have been astounded to find himself listed sometimes among the causes of the Civil War. He invented the cotton gin which revived slavery and made cotton the basis of Southern economic power. Then he developed the principle of interchangeable parts which made the North industrially strong enough to defeat the South.

Whitney was a serious-minded, hard-working person. A bachelor most of his life, he eventually married the granddaughter of Jonathan Edwards. He thought and spoke slowly although very clearly. He had great faith in the soundness of his principles. If something could be solved mechanically, he felt that he could do it. Whitney was one of the greatest American inventors of the pre-Civil War period: only Oliver Evans could rival him.

Donald L. Kemmerer
University of Illinois

A World Geography of Forest Resources.
Edited by STEPHEN HADEN-GUEST, JOHN K. WRIGHT and EILEEN M. TECLAFF.
(Special Publication No. 33 of the American Geographical Society, New York,
The Ronald Press Company, 1956, xviii,
736 pp., \$12.50.)

A critical reading of this large volume cannot fail to impress one greatly of the outstanding job done by authors, editors, cartographers, and the publisher. Truly it is a monumental contribution to geographic literature. It is largely a product of international collaboration; of the thirty-

five contributors to the volume twenty are specialists in forests or forest industries from as many foreign countries; only fifteen of its authors are from the United States.

The careful reader will be cognizant of three main themes extending throughout the volume: (1) the relation of different types of forests to precipitation and temperature regimes, to relief and soils, and to the needs and institutions of people nearly everywhere, (2) forest industries and forests as sources of many essential raw materials, and (3) the great unsolved problems of sustaining yields of forest products in the face of ever-mounting and ever-changing demands and of maintaining and enlarging forest areas to conserve water and to protect property and life against erosion and floods.

The volume opens with five chapters devoted to the past and present importance of the forests to man, relation of forests to physical conditions, principles and practices of forestry and the forest products industries. These chapters deal with these subjects in their world-wide aspects. They give one a keen insight into the part forests have played, are now playing, and will play in the future in the activities of man. They emphasize some of the problems man faces in bringing about a wise use and the regeneration of forests, "our most important replaceable natural resource."

The 25 regional chapters, which constitute about 75 per cent of the textual materials, together encompass all forest areas of the world. The organization of the regional sections of the volume is by countries or regions. Although these chapters differ greatly in method of treatment and in detail, they for the most part cover forest types, forest area and distribution, valuable commercial species, forest industries, and forest management practices. In a manuscript contributed by so many authors unequal and unbalanced weight given to different areas are inevitable: (1) about as much space is devoted to the forests and forest industries of the British Isles, where forests play such an insignificant role in the total economy, as is given sep-

arately to those of Alaska, Middle America, Northern Europe — Sweden, Norway, Denmark and Finland — East Central Europe, the Philippines, and Australia, (2) more space is devoted to the forests of the Mediterranean Region than to those of the USSR, Southeastern Asia, West Central Europe, Northern Europe, South America, and the United States. Perhaps the historical importance of forests and the diversity of forests and forest industries of the Mediterranean Region may be considered bases for this greater weight, but that is certainly a debatable question. The differences in method of treatment, detail and weight devoted to the country or regional sections are more than compensated for, in the opinion of this reviewer, by the fact that the material came from a man who has held, or is now holding, a position of responsible leadership in forest administration, in teaching forestry, or in research in the country or region about which he writes. Although the statistical and other data in some sections are several years old, they are in general as up-to-date as possible in a volume that has been under preparation for several years and by so many authors from all portions of the world.

On the whole the volume is well illustrated. More than one hundred excellent photographs, grouped together according to forest types, facilitating comparison, supplement the text. Fifty-eight maps and diagrams are tied in with the textual material. These, all prepared by the Cartographic Unit of the American Geographical Society, are up to the usual standards of high quality. If there is a weakness in map coverage from the point of view of the geographer, it is the lack of maps of forest types by countries or regions. In the regional sections on countries or regions there are sixteen maps showing the distribution of forests by types; ten sections, such as those for Middle America, South America, South Africa, Southwest Asia, Southeast Asia, China, etc., have no regional maps of forests by types or by forest areas. In these cases the careful reader must turn in many instances to the one general

world map or to an atlas for a clear understanding of the details of the text.

This definitive integrated appraisal of the world's forest resources today, as portrayed by a group of nationally and internationally known authorities, provides essential information that cannot be overlooked by all professional workers and students in the disciplines of forestry, geography, ecology, and conservation and for all those persons who have a deep interest in the present and future of the forest resources of the world. The American Geographical Society of New York deserves much credit for having initiated such an ambitious project and for bringing it to an outstandingly successful conclusion.

Clarence F. Jones
Northwestern University

When Grass Was King. By MAURICE FRINK, W. TURRENTINE JACKSON and AGNES WRIGHT SPRING. (Boulder, University of Colorado Press, 1956, xv, 464 pp. \$8.50.)

This large, handsome volume is devoted to the range cattle industry in the Texas Panhandle and the central and northern plains region north and west of it to the Canadian border. Only brief attention is given to the remainder of Texas, Indian Territory, the Great Basin and the Pacific Coast States. The three authors have each written one of the three parts into which the book is divided. In consequence it is actually three books in one, each with its own comprehensive bibliography.

Part One consists of 123 pages of text divided into five chapters. The first two of these deal with how the industry was built, methods of operation, and the number of cattle in each of four typical range states at various periods from 1867 to 1895. Figures are also given as to the number in these states in 1956 which show that there were more cattle in all of these states except New Mexico in 1956 than in the peak year of 1890. The three remaining chapters give a year by year account of the development of ranching in this vast area from 1865 to 1895. Details are given as to the northern drives out of Texas, the

emergence of great ranches, the men who operated them, profits and losses, important events or movements, and something of the significance of the range cattle business as a great productive industry.

Part two, consisting of seven chapters with a total of 186 pages of text, deals with British interests in the range cattle business. For a hundred years after the close of the Napoleonic Wars Britain was the leading creditor nation of the world. From it flowed vast sums of capital for investment in canals, railroads, mining operations, and other enterprises in America. This was checked by the outbreak of the American Civil War but was resumed after the close of that struggle, in part because of the rapid settlement and development of the Trans-Mississippi West. By the 1870's British investors became interested in the ranching industry on the American Plains. In 1873 the Scottish-American Mortgage Company was formed in Edinburgh and the Scottish-American Investment Trust in Dundee, while similar organizations were established in London.

The interest of these companies in ranching ventures was greatly fostered by the exportation of cattle and dressed beef from America to Britain. In 1875 over 57,000 head of cattle were exported to the British Isles and by 1880 this number had risen to 185,000. The export of dressed beef was not important until 1877 when nearly 50,000 pounds were sent to Britain and this was more than doubled in 1881. The cattle growers of North Britain were alarmed by this great influx of American meat and in 1877 the *Scotsman* of Edinburgh sent one of its staff, James Macdonald, to America to report on the situation. His letters, later published as a book, *Food from the Far West*, aroused much excitement and in 1879 the British Parliament created a Royal Commission on Agriculture which sent Clare Read and Albert Pell to the American West to make a further investigation. Their report, published in 1880, gave a glowing account of the ranching industry and declared that all capital invested in ranching during the

past ten years had yielded an annual net profit of over thirty per cent.

The thought of an annual return of thirty per cent on an investment was too much for the canny Scots! Already Scotch-Irish John G. Adair had purchased the J A Ranch in the Texas Panhandle which was proving very successful under the management of Charles Goodnight, later a partner in the business. The great British investment companies bestirred themselves and in 1880 the Scottish-American Mortgage Company launched the Prairie Cattle Company with a capital of 200,000 pounds. For the first few years it seemed very profitable and the creation of similar companies quickly followed. In 1882 ten major British ranching companies were formed capitalized at from \$575,000 to \$2,000,000. Among these were the Matador in the Texas Panhandle, the Texas, Western Ranches, Hansford, California Pastoral, Powder River, Wyoming Cattle Ranch Company, and various others. Six English and two Scottish companies were established in 1883, including the Swan in Wyoming, Deer Trail, and the Dakota Stock Grazing Company. By 1885 the range cattle industry had reached the zenith of its importance with some \$45,000,000 of British capital invested in it including loans made to hard pressed American ranchmen.

Then came the terrible winter of 1886-7, the westward advance of settlers who occupied much of the range, and the gradual decline of the business, at least as it had been carried on in the past. The Scots fared better than the English but by the end of the century it was apparent that most British ranching companies had suffered heavy losses. A few continued to operate well down into the Twentieth Century, and two—the Swan and the Matador—until the near present. The Swan began to replace cattle with sheep in 1905 and eventually became a sheep ranch. It was reorganized in 1925 and a new company incorporated under an American board with the Scots still retaining an interest in it. In 1956 a little of its real estate was still to be sold. The Matador, for many

years under the management of Murdo Mackenzie, was sold to Lazard Brothers and Company of London in 1851, following the discovery of oil on nearby land, for nineteen million dollars. It was the last and most profitable of the British ranching enterprises since its shares sold for thirty times their original cost after paying fifteen per cent in dividends and bonuses for thirty years.

Part Three of the book relates, in 104 pages, the life story of John Wesley Hiff, known as the "Colorado Cattle King." He was born in Ohio in 1831 but migrated to Kansas in 1856 and from there to Denver, Colorado three years later. He established a store, bought and sold cattle, and by 1861 definitely launched his range cattle business. He continued this throughout the troubled years of the Civil War and the Indian outbreaks later and in 1868 he and his partner, H. Fenton, bought \$40,000 worth of Texas cattle from Charles Goodnight. These were delivered to Hiff's headquarters ranch in southern Wyoming and he removed to Cheyenne. He remained here for six years usually buying from 10,000 to 15,000 head of Texas cattle each year. In 1874 he removed to a home which he had purchased in Denver and died in that city in 1878. James Macdonald, who visited his headquarters ranch in 1877, said that Hiff at that time owned nine ranches and about 35,000 cattle. After his death his far-flung estate was liquidated by his widow with comparatively little loss. Hiff was unique among the great figures in the range cattle business since he entered it very early and died before the huge cattle boom was well under way. He was distinctly a pathbreaker and was one of the most successful of the leaders in the development of the Cow Country.

This is a very significant book and a most important addition to the literature of the cattle business, and especially to that dealing with the contributions of the British to the industry. It is well written and two maps, a number of very attractive illustrations made from photographs, and the drawings by Nick Eggenhofer all add to its interest and value. The bibliographies

are excellent and the index quite adequate.

Edward Everett Dale
University of Oklahoma

"The Cow Killers": With the Aftosa Commission in Mexico. Drawing by BILL LEFTWICH. Text by FRED GIPSON. (Austin, University of Texas Press, 1956, x, 130 pp., \$4.95.)

The outbreak of the foot-and-mouth disease in Mexico in November 1946 presented a most serious problem to the Mexican government and people. This contagion spread rapidly into parts of 16 of the 28 states and the Federal District and caused great alarm in the United States which imported large numbers of Mexican cattle. The United States government immediately closed the frontier to all Mexican livestock and established an efficient patrol along the border. It took joint action with the Mexican government under a 1930 treaty providing for mutual aid in the event of an outbreak of this contagion. To this end the Mexican-American Aftosa Commission was formed for the eradication of the foot-and-mouth disease, which in Mexico is called *aftosa* fever. A good account of the work of this Commission is presented in an article by William Dusenberry entitled: "Foot and Mouth Disease in Mexico, 1946-1951," *Agricultural History*, 29 :82-90 (April 1955).

The Commission was composed of scientists, technicians and field workers of both nations which at high tide of employment numbered 1,666 Americans and 7,938 Mexicans. It had the authority to establish and maintain rigid quarantine lines, slaughter all infected animals, and vaccinate all animals in exposed areas. Slaughter of animals proceeded at such a rapid rate that by November, 1947, nearly 500,000 cattle and as many small animals were slaughtered.

This program of unrestricted slaughter, if continued to a successful end, would mean the destruction of the susceptible animals in the entire area under quarantine, estimates of which ran to 5,000,000 cattle and as many small animals. The

Commission was warned that the country could not stand such wholesale destruction and was urged to change to a program of extensive vaccination which was adopted in November 1947. Quarantines, inspections, and disinfections were continued, infected and exposed cattle were slaughtered, and healthy cattle were vaccinated. By the end of August 1950, 60,000,000 injections in four different vaccinations had been applied. By the spring of 1951, the foot-and-mouth disease had been eradicated; the mixed commission was abolished; and the embargo which had been in effect for nearly six years on imports of Mexican cattle and beef was lifted by United States Secretary of Agriculture, Charles F. Branman.

The immediate background against which the present volume is sketched was the resistance of the people to the program of the Commission. Illiterate and on a bare subsistence level, they were unable to understand the reasons for vigorous measures in exterminating the foot-and-mouth disease. They depended on their livestock for meat and wool and a small margin of profit. Moreover, they had a deep and abiding affection for their animals. Their resistance to the program was further intensified by the "arrogant Mexicans of the ruling *gente decente* class." Added to the situation were the Texans, New Mexicans, and Arizonans of the traditionally hated white race.

Against this background, Bill Leftwich has sketched 41 drawings depicting the reaction of the people to the work of the "cow murderers." He served as livestock inspector for the Aftosa Commission, spending "some three years in rounding up and corralling cattle, chasing pigs, roping and tying down wild mountain steers, inspecting every cloven-footed animal in his district for symptoms of the virus." His drawings portray the tragedy and the brutality and withal the comies in the life of Mexican peasants during this period.

Leftwich kept notes of these adventures which were turned into stories by Fred Gipson, Texas Hill Country author, to accompany the drawings which provide a

vivid mental picture of a series of episodes in the resistance movement which was finally overcome by an active campaign of education, compensation for destruction of livestock, provision of mules for oxen slaughtered, and success in eradication of the contagion.

*Louis Bernard Schmidt
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Lucky 7, a Cowman's Autobiography. By WILL TOM CARPENTER. Edited with an introduction and notes by ELTON MILES. (Austin, University of Texas Press, 1957, 119 pp., \$3.50.)

Lucky 7, or Will Tom Carpenter, belongs in the lusty company of Edward (Teddy Blue) Abbott, Bill Walker, Charlie Siringo, and other articulate Westerners who have recorded their stories in the lively vernacular idiom of America's cow country.

Will Tom was the youngest in a family of seven. "I'll just name myself No. 7," he writes in the beginning of his autobiography, "as there is nothing in a name anyway." During the Civil War when Will Tom was about eight years old, his father pulled stakes and left Missouri, moving his family to Colorado. From that time on, Lucky 7 was a roving Westerner. He saw just about all the American West during its bustling days of the 1870's and later, including Texas cattle drives to Abilene and Dodge City.

In 1882, Carpenter drove the lead steer in what must have been one of the big overland drives of that era, nearly 12,000 head, moving in three herds up the Western Trail, crossing Red River at Doan's Crossing, and on to Dodge. "Dodge City was in full bloom, you can take it from me . . . you could sure get a fast run for your money."

But he has little to say about the lurid side of trail driving; he devotes more space to the business of cattle than to dance hall girls and fast gunmen. "Working on those spring roundups," he writes, "wasn't just a little bit like going to see your girl on Sundays." Lucky 7 saw the end of trail

driving, and he had experiences moving cattle by rail. He also worked for the fabulous XIT, and saw barbed wire bring an end to the open range.

Will Tom Carpenter didn't get much schooling, but he learned to read and write well enough to create in the spoken language of his day as realistic a picture of his sort of life as has been put into a book. The bitter cold, the burning heat, the grit and sweat of a working cowman's daily routine, are all here in this unpretentious story of one Westerner's life.

Elton Miles of Sul Ross State Teachers College, Alpine, Texas, demonstrates how an editor can be useful and unobtrusive at the same time. He never interrupts Lucky 7's drawing flow of language, yet keeps the reader informed when the author's references become obscure. The evocative drawings by Lee Hart fit the moods of the text, and the book is a beauty to behold.

D. A. Brown
University of Illinois

Edward Palmer, Plant Explorer of the American West, By ROGERS McVAUGH. (Norman, University of Oklahoma Press, 1956, 430 pp., \$6.00.)

Edward Palmer was a professional plant collector (now an almost extinct breed of men) whose active career covered over fifty years (1853-1910) of American history when the Southwest and Mexico were unknown territory. Palmer did much to put this region 'on the map'; many of the specimens which he collected and sold to museums all over the world (at much sacrifice and some peril) were then unknown to science. And although Palmer's efforts were not especially directed to the discovery of specific types of plants of economic importance, hindsight reveals that hundreds of potentially valuable drug plants, crop plants, and horticultural species were first brought to the attention of man by the collecting activities of Edward Palmer.

On the surface, Dr. McVaugh's work on Palmer is a biographical sketch gleaned from the scanty letters of a man who was

not prone to write his biography in letters, who probably never dreamed that his comings and goings would some day be of interest to others, and who was rather inarticulate and, by our standards semi-literate, in his correspondence. However, the book is much more than a biography, albeit an excellent one. In fact, the average reader will wonder why the biographical portion occupies only 120 pages while the seemingly secondary appendices (copies of field notes, list of collections and locations of the same, and Palmer's last will and testament) fill 300. The reason behind this apparent incongruity will be immediately evident only to a small minority of scientists, the plant taxonomists, to whom this book will be an absolutely indispensable gold mine, the definitive key unlocking the secrets of Palmer's collections.

For the sorry fact about the Palmer collections is that although Palmer was as careful as he could be in documenting his collections, the final job of seeing to it that the proper data went with the specimens into the museum collection was usually left to other people; the inevitable result was that the work was slipshod, the data were divorced from the specimens, and Palmer's collections deteriorated in their value to science. As they are found in the museums of the world, Palmer's collections have a bare minimum of fragmentary data as to the date and place of collection, the condition of the vegetation, color of flowers, ethnobotanical notes, and so on. It is axiomatic in museology that data without specimens may be worth something, but specimens without data are completely worthless, regardless of what they may have meant to the collector or donor.

What McVaugh has done for the Palmer collections amounts to a resurrection. By a combination of luck, persistence and research skill, he has brought together from all kinds of sources, including diaries, field notebooks, correspondence, and specimen labels scattered through the world's great herbaria, all of the data pertinent to Palmer's plants. These sources have been hard to come by, and meagre by the most

frugal standards. Therefore, McVaugh's book is more than a biography of Palmer; it is a living, working tool by which scientists can fill in the 'lost' details pertinent to the documentation of his collections. As long as Palmer's collections have any scientific value, this book will rest beside them like a Rosetta stone. It should also be emphasized that, contrary to most biographers, the writer's interest in Palmer lay primarily in unraveling the puzzles and problems raised by his poorly documented specimens, in uncovering the truth about these, rather than in creating a lovable character whom the world would desire to read about. Actually, Dr. McVaugh has, in a literary sense, done a great deal of this, but most important, his writing shows the most painful accuracy of detail and the greatest care to avoid embellishment of the facts. It is a fortunate man whose biographer treats him with as much respect as this one.

W. A. Weber

University of Colorado Museum

Westward Is the Course of Empires. By PER SVEAAS ANDERSEN, (Oslo, Norway, University of Oslo Press, 1956, viii, 133pp.)

Slightly over a decade ago, Fulmer Mood wrote in *Agricultural History* that the current professional obligation of historians was resolving the frontier thesis controversy. While the last ten years have not witnessed a decision in the frontier issue, American historiography has benefited from numerous intellectual probings into the effect of the frontier on American civilization.

The latest contribution, *Westward Is the Course of Empires*, is an attempt to discern the genesis of Turner's theory. Originally initiated at the University of Oslo, the study was completed after the author spent a year at universities (notably Wisconsin) in the United States.

Andersen has adopted what he terms a "chronological retrogression" procedure in his analysis of Turner's ideas. In utilizing this methodology, the author has chosen

six "active concepts:" the frontier, the West, free land, the idea of nature, the idea of evolution and the economic-thought complex of land and trade. Taking these six concepts, Andersen analyzes, in reverse chronology, how each concept is developed in twelve of Turner's articles.

Several of Mr. Andersen's predecessors, in their search for the genesis of Turner's ideas, have pointed to one particular set of causative factors as the dominant mould for the frontier theory. Fulmer Mood has placed emphasis on Turner's academic background, the Census of 1890 and the Portage environment. Lee Benson believes the Italian economist, Achille Loria, to be the main force in the creation of Turner's economic thought. Rudolf Freund finds the German historians and philosophers as the primary influence on Turner's philosophy and Henry Nash Smith has written the frontier thesis was a "scientific" representation of the American tradition concerning the West.

Andersen has avoided emphasizing any set of particular agents as the magic barrel wherein Turner dipped for his ideas. He writes Loria, Turner's colleagues, the German philosophers, the Portage environment all affected Turner's intellectual cosmos, but that in the end "the frontier theory was the result of a quiet and organic intellectual development, a development without dramatic events."

The book is remarkably free from the polemics that have so often marred the arguments of American scholars on the Turner thesis. The author's announced intention of understanding rather than condemning or praising Turner has been adhered to. This is not to say that the conclusions reached by Andersen will win unilateral acceptance. For instance, the author writes that Turner did not reject the importance of the industrial revolution or the land speculator, as many of his critics have claimed, but because the industrial revolution was both a European and American phenomenon and the land speculator was a hybrid of an eastern capitalist and western agriculture, neither could be assigned a place in a theory rooted

in something as uniquely American as the frontier. It can be imagined few critics will be satisfied by this explanation.

While not without flaws, *Westward Is the Course of Empires* is a well-balanced objective and clearly evolved analysis of the origin of Frederick Jackson Turner's thesis. Indeed — this book can be regarded as a major contribution to a body of literature in which major contributions are becoming a rarity.

Gene M. Gressley
University of Wyoming

The Combined Food Board: A Study in Wartime International Planning. By ERIC ROLL. (Stanford University, Food Research Institute, 1956, xiii, 385 pp., \$7.50.)

Eric Roll's excellent account and analysis of the Combined Food Board is the eleventh book to be published in the twenty-volume series scheduled on food, agriculture, and World War II by the Food Research Institute of Stanford University. This is a valuable book for scholars interested in studying the development and administration of food and agricultural policy during mobilization and war periods and for those studying and participating in the work of current intergovernmental organizations.

The author's experience, serving in the positions of Deputy Executive Officer, Executive Officer, and Deputy Member of the Board, enables him to write with authority concerning major developments in the life of the Board and to relate these to fast-moving events of the war and to internal changes in war-time food policy and organization in the United States and Great Britain. The general treatment is chronological. Special chapters are devoted to allocation in theory and practice, to external relations of the Board, and to the food crisis of 1945. Special attention is given to the work of the Sugar, Meat, Fats and Oils, and Cereals Committees since these Committees were faced with controversial problems which at times became insoluble within the framework of the Combined Food Board. The

final chapter appraises the accomplishments of the Board.

The author has not provided references or a bibliography since most of the material used is in the official files of the Food and Agriculture Organization of the United Nations and in those of the member governments. Because of the inaccessibility of the material a number of selected documents are reproduced in the appendix. The appendix also includes a chronology of important events relevant to the history of the Board, a listing of Board recommendations, and three summary tables showing results of studies dealing with consumption levels in the United States, Britain and Canada.

In his analysis of the powers and functions of the Combined Food Board, Mr. Roll points out that the scope of the Board was defined in the widest possible terms "to consider, investigate, inquire into and formulate plans" with respect to areas of common concern including food production, transportation, disposal, allocation or distribution and to work in collaboration with others of the United Nations towards the best utilization of their food resources. Its powers, however, were limited to making recommendations to the governments concerned. Thus, the Combined Food Board was an instrument for securing international agreement on actions which should be taken by member governments. Board members and committee members could negotiate to arrive at agreement but formal recommendations to the member governments were not made until agreement was certain.

The author states that the Board's influence and its ability to press agreement on the member governments were the result of the status it acquired over the years. He refers to the Board as the "supreme Allied body for the planning of food supplies" stating: "Although it had no mandatory powers its recommendations . . . were almost automatically accepted by the governments concerned; and, in the main, they determined, if not the detail, at least the broad pattern of food policy for four years." However, Mr. Roll's narrative

shows that agreement on combined allocations was only possible without major controversy within the framework of the Board on those foods of which the United States was either a net importer or had a large export surplus. When the United States food was in short supply, discussions and agreements "in principle" were moved up to a higher level of international negotiation and placed in a broader context on the initiation of the British with the Combined Food Board marking time. Mr. Roll regards these higher level negotiations not as a breakdown of the Board but as a vindication of the principle and methods of combined planning as carried on by the Board. The author indicates that coordinated purchase, "designed to maximize supplies and to prevent inflationary price rises" was probably the most consistently successful and least controversial of the Combined Food Board programs. British contributions were of major importance in this area.

Mr. Roll's narrative shows that mutual interest in the domestic policies of both countries was heightened during the food crisis of 1945 with the British suggesting that United States domestic consumption should be reduced and the Americans proposing that British stocks should be reduced to maintain British rations and to make supplies available for relief. The two governments agreed on the policy of refusing a United Nations Relief and Rehabilitation Administration request for membership on the Combined Food Board and on the presentation of an optimistic report, at the September 1944 UNRRA meeting, on the United Nations ability to solve the problem of meeting over-all food requirements. Mr. Roll notes that this vague statement, "soon to be belied by the pressure of events" was in remarkable contrast to the line which had been taken at the Hot Spring Conference at the initiative of the British and to the elaborate survey of the world food situation made by the British Ministry of Food. He states that "the tone of the report can only be explained by the American desire to avoid a pessimistic forecast for fear of being committed thereby to

actions which domestic political conditions might make it impossible to carry out." The author does not explain why the British followed this acquiescence in a statement which appears to have been contrary to their conviction by a request for increased allocations for 1945 to improve British rations.

Mr. Roll apparently feels that a case can be made for the admission of Canada to full membership on the Board prior to October 1943 but seems satisfied with the British position that other dominion governments and allies should be represented on appropriate committees but should be excluded from Board membership. The limitation of membership on a Board which was concerned with the planning of food supplies for the United Nations was sharply criticized by other countries and by UNRRA during the food crisis of 1945 and 1946. The author's point that the British would have received much less food from United States' supplies without the opportunity which the Combined Food Board provided "to apply a number of general criteria of equity . . . and to base distribution on a common systematic examination of the same data" is well taken and few would question the desirability of further sharing of United States' food supplies. However, the author gives little attention to the possibility that expanding the membership of the Board might have increased the portion of food supplies which the United States and other producing countries were willing to share or resulted in fairer sharing of that portion among the United Nations in 1945 and 1946. This problem was resolved during June 1946 when the Combined Food Board was superseded by the International Emergency Food Council with representatives of nineteen countries as original members.

Since the Combined Food Board was dependent upon its ability to influence the decisions of sovereign governments it is difficult to evaluate its accomplishments. Others may not agree completely with Mr. Roll's very favorable evaluation or with his assessment of the Board's difficulties.

His clear and objective account of the Board's origin, organization and activities provides a basis for further evaluation by historians. Mr. Roll has rendered a real service by this analysis and account of a major experiment in international cooperation.

Gladys L. Baker
U. S. Department of Agriculture

The World Fertilizer Economy. By
MIRKO LAMER. (Stanford University
Press, 1957, xvi, 715 pp. \$12.50.)

"Agricultural history has passed through various stages in its development; at present, it is in the *fertilizer epoch* (p. 638)." Author Lamer draws this conclusion after presenting a detailed account of trends in production and use of commercial fertilizers from World War I to the present in the major countries of the world. The impact of World War II on the fertilizer economies of some twenty countries receives major emphasis in this volume; the period following World War II is treated only in terms of world totals of production and use. Information on fertilizer production and use in the Soviet Union is a notable contribution of this book.

Early scientific investigations of the relation of plant nutrients to growth occurred at about the same time Malthus was writing about population and food supply. Even if Malthus had known about these investigations he probably would have been unimpressed. It was not until much later that the chemical industry had developed sufficiently for agriculture to begin to realize the potential increase in crop production through the application of inorganic materials. It has been estimated that, in the past hundred years, commercial fertilizers have been responsible for 25 per cent of the yield increase in the United States and 50 to 75 per cent of the yield increase in some parts of western Europe.

The pronounced country-to-country variation in fertilizer use is generated by a variety of causes. A rather striking positive relationship exists, however, between rates of consumption and the density of popu-

lation on arable land. This relationship is especially marked in countries which have advanced marketing systems embracing a commercialized agriculture.

The three principal plant nutrients are nitrogen, phosphoric acid and potash. For nearly 100 years, the predominant source of inorganic nitrogen was Chilean nitrate. During World War I there was considerable pressure to increase production of by-product nitrogen and calcium cyanamide. But the great revolution in nitrogen production came with the discovery and development of methods for fixing nitrogen for the atmosphere. The Haber-Bosch process of synthetic nitrogen production, developed in Germany, became available to other countries after World War I and played an important role in increasing production of synthetic nitrogen.

In the middle of the nineteenth century the most important sources of phosphate rock were the deposits in the Ardennes and Somme Valley in France. Around 1890 the Florida deposits became the main source with the most important later producers being Morocco, where production started during World War I, and the Soviet Union, where deposits on the Kola peninsula were opened in 1930.

Prior to World War I Germany held a natural monopoly on potash production. This monopoly deteriorated with the transfer of Alsace-Lorraine to France and the discovery of potash deposits elsewhere, the largest of which is in the Soviet Union.

With regard to market structure, the period before World War I was in general one of natural monopolies. The scarcity of fertilizers in World War I caused a very rapid unsystematic expansion of fertilizer production throughout the world. This was followed by a period characterized by manufacturing firms and raw material producers entering into collective agreements. During World War II and the period following, the international fertilizer cartels tended to be dissolved. Allied occupation ended the control of I. G. Farben in Germany and the *zaibatsu* in Japan. In general, international agreements have not been revived because of the con-

tinuing very heavy demand for fertilizer.

By 1954, world-wide production and consumption of the three principal plant nutrients had more than doubled 1938 levels. Although the great increase in consumption in the United States has been accompanied by a decline in real fertilizer prices, more fundamental causes are likely to be increased farm incomes and general technological advance.

Dr. Lamer has produced a scholarly work on a subject of increasing importance. Although he writes primarily from the standpoint of an economist, he has been careful not to abstract from the basic physical and biological determinants of fertilizer production and use. His chief contribution, however, has been one of recording the close connection between the events of World War II and the development of the fertilizer industry.

Earl B. Swanson
University of Illinois

Soil Fertility and Fertilizers. By SAMUEL L. TISDALE and WERNER L. NELSON. (New York, Macmillan Co., 1956, pp., \$7.75.)

This is a well written and referenced textbook for college upperclassmen. However, vocational agriculture teachers, soil conservationists, county agents and other agricultural workers will find it useful for reviewing and bringing up to date their knowledge of soil fertility and fertilizers.

The initial chapter of the 19 is an interesting review of land fertility and fertilization from 2500 B.C. in Mesopotamia (Iraq) down to recent times in America, derived from the writings of many people including Herodotus, Virgil, Pliny, Tull, Liebig, Ruffin, Hilgard and Hopkins.

Several following chapters are devoted to the essential, secondary, and trace elements, their role in plant growth and development, and their reaction in the soil and resultant availability to plants. Nitrogen, phosphorus, farm manure and liming are each discussed in separate chapters, attesting to their importance to plant growth. The properties, agronomic values

and the manufacture of fertilizers and fertilizer materials are fully discussed in several chapters. Manufacturing processes are simply and clearly illustrated by schematic and flow diagrams, plus the customary chemical formulas and descriptions.

Of particular interest to the soil scientist is the mention of soil type names in presenting experimental data, where this information is available to the authors. Too often, soil research results are published without adequate identification and description of the soil type. Some day perhaps, textbooks will list in an appendix the soil type, great soil group and the known pertinent physical and chemical properties of all soils mentioned in the text.

"Selected References" is the concluding part of each chapter. A casual inspection shows that most of the cited references were published since 1950, indicating the "up-to-dateness" of the authors' data.

In the last quarter of the book soil fertility evaluation is discussed in detail including such fertility indicator techniques as plant nutrient, deficiency symptoms, tissue analysis, biological tests and chemical soil tests. The latter technique has met with widespread acceptance in the United States and in foreign countries because it can be done quickly and before the crop is planted.

In evaluating cropping and soil management systems as to effects on sustained production, the authors point out that the following factors must be considered: (1) effect on organic matter and soil tilth; (2) effect on plant-nutrient supply; (3) effect on incidence of weeds, insects, and diseases; and (4) effect on water intake and soil erosion. Since these factors are affected by heat, cold, rain, drought, elevation, light, and many soil differences it is obvious that proper soil management can be a complex problem from north to south and east to west.

The purpose of the concluding chapter, "Attacking Soil Fertility Problems" is to acquaint the student with the how, the when and the where to attack rather than

"what" to attack. A number of problems are mentioned, although one increasing in importance was omitted, namely the effect of irrigation on fertility and fertilizers.

Correspondence with the authors reveals that they were aware of this and other problems but "elected to stay within the relatively narrow limits described by the title of the text itself."

James E. McDonald
Soil Conservation Service
Charleston, South Carolina

Israel Agriculture 1953-54. A Report Prepared by the JOINT PLANNING CENTER and the ECONOMIC ADVISORY STAFF. (Hakiryah, Israel, Government Printer, 1955, viii, 254 pp.) In a comprehensive survey, *Israel Agriculture 1953-54* treats almost every major aspect of agricultural endeavor. The volume is divided into thirteen parts. The beginning includes an introduction to the report followed by a summary of each chapter. The subjects covered include agricultural resources, production, investment, finance, labor, marketing, foreign trade, food supply, prices and income. The report concludes with several appendices. Throughout, numerous charts, graphs and statistical tables are employed to illustrate the text.

This report is an attempt to present the more important aspects of Israeli agriculture in an objective and factual manner. Each chapter ends with a concluding section in which problems are presented

indicating various difficulties and policy considerations which must be faced in the future. The report does not interpret facts nor answer questions raised but rather seeks to present major issues in a setting from which future plans and programs can be developed.

The chapter on farm labor points out that under comparable conditions, labor efficiency is much lower in Israel than in the United States, lower even with equal mechanization. The comparative inexperience of farmers in Israel and the small, unspecialized character of farms are given as reasons for such lavish use of labor in agriculture.

An interesting feature of agricultural finance is the effect of a rapidly rising price level upon credit and debt. This process operates to reduce the burden of debts but also encourages expansion of credit beyond economic limits.

The discussion of agricultural prices treats an important aspect of this farm economy. The outlook is for lower prices compared with the cost of other commodities and services. There is serious doubt as to the ability of agriculture to maintain its capital structure with the prospect of declining profits. Comparative stability in the general price level would greatly benefit agriculture, the report concludes.

Paul M. Overholtzer
U. S. Department of Agriculture
Foreign Agricultural Service

Notes and Comments

The American Council of Learned Societies is making available two funds of \$10,000 each for fellowship grants and grant-in-aid programs during 1958-59. The purpose of the funds is to provide opportunities for younger scholars to complete research projects in the humanities, including history and the history of science. Candidates for the programs must have

the doctorate or its equivalent at time of application. Awards up to \$7,000 are available in the Fellowship Program, and up to \$3,000 in the Grant-in-Aid Program. Application forms and further information are available from the ACLS Fellowship Program, American Council of Learned Societies, 2101 R. Street, N.W., Washington

S. D. C. Applications must be received not later than October 15, 1957.

The original agriculture, industry, mortality, and social statistics schedules of the North Carolina census records of 1850-1880, which were returned to North Carolina in 1918, have been transferred to the Archives from the State Library. Due to the weight and poor condition of the volumes, a program has been instituted to microfilm them. In this way these valuable manuscripts copies may be made available to the public within the next year.

Ed M. Peacock, who owns a farm near Fulton, Missouri, has assembled there a collection of 12 old steam-powered agricultural machines, all of which have been put into working order. Mr. Peacock, who spent 10 years searching through barn lots to piece together his collection, holds frequent demonstrations for friends, neighbors and visiting engineers. The largest item in his collection is a Reeves compound steam engine built in the 1890's, and is believed to be one of two such in the country still in operating condition.

An authentic restoration of a lumbering community of the 19th century was completed this year on the Pine Beach area of Gull Lake near Brainerd, Minnesota. The village is called Lumbertown. Buildings were constructed of old boards to lend a realistic touch. Other bits of realism are general stores stocked with cutplug tobacco, red flannel underwear and old-time patent medicines.

Recent additions to Wisconsin's Stonefield Farm and Craft Museum, near Cassville, include a 1916 Rumley oil tractor, one of the first gasoline tractors manufactured by International Harvester, a rare lawn mower dating back to the 1840's, and some coaches and carriages from the Frederick Bissell collection. Stonefield is located on the estate of Nelson Dewey, Wisconsin's first governor. Among its attractions are restored blacksmith and harnessmaker shops, and a collection of

farm implements which trace the history of agriculture from grain cradle to modern tractors.

Wisconsin's State Historical Society is assembling from its picture collection a series of photograph exhibits to illustrate community history. The exhibits will be made available to schools, libraries, museums, and local historical societies at low rental fees. The first series will document the Mississippi River, folklore, and the Wisconsin local press. Paul Vanderbilt of the Society is in charge of the program.

ACTIVITIES OF MEMBERS

William D. Barns of West Virginia University taught at McMaster University, Hamilton, Ontario, Canada, during the summer of 1957.

Vernon Carstensen of the University of Wisconsin has returned to that institution after lecturing for a year in Sweden.

Gary Dunbar, formerly at Longwood College, is now at the University of Virginia.

Jaime R. Manning of the Universidad Mayor de San Andres, La Paz, Bolivia, has kindly agreed to correspond with historians and economists interested in Bolivia. He is an authority on Bolivian statistics and economic policy. Professor Manning should be addressed at Casilla 950, La Paz, Bolivia.

Harold T. Pinkett of the National Archives discusses "Gifford Pinchot at Biltmore," in the *North Carolina Historical Review*, 34: 346-357 (July, 1957).

Robert L. Tontz, formerly Agricultural Economist with the Agricultural Research Service, Washington, D. C., was appointed on June 30, 1957, to Assistant Chief, Trade Statistics Branch of the Foreign Agricultural Service, U. S. Department of Agriculture, Washington, D. C.

Bennett H. Wall of the University of Kentucky discussed "Lyman C. Draper's Trail a Century Later" at the mid-winter meeting of the Wisconsin State Historical Society.

Walter Prescott Webb of the University of Texas gave the 1957 series of Walter

Lynwood Fleming Lectures in Southern History at Louisiana State University. Professor Webb spoke on "Some Aspects of American Sectionalism."

Edward N. Wentworth is the author of "What Do We Know About the Early Dog," *Pure-Bred Dogs American Kennel Gazette*, 74:10-11, 69 (January, 1957).

Carl R. Woodward, President of the University of Rhode Island, received the Doctor of Laws degree from Northeastern University at the University's 56th Commencement Exercises in Boston Garden on June 16, 1957.

RECENT ARTICLES OF INTEREST

Agricultural History Review — Vol. 5, part 1, 1957: "Pollen Analysis: A Technique for Investigating Early Agrarian History," by J. W. Franks; "The Sheep-Corn Husbandry of Norfolk in the Sixteenth and Seventeenth Centuries," by K. J. Allison; "The Consolidation of the Crofting System," by Malcolm Gray.

Geographical Review — April, 1957: "Agricultural Production in the United States. The Past Fifty Years and the Next," by Chauncy D. Harris.

Georgia Historical Quarterly — March, 1957: "The Georgia Wine Industry on

the Eve of the Civil War," by James C. Bonner.

Journal of Economic History — March, 1957: "'Profits' and the Frontier Land Speculator," by Allan G. Bogue and Margaret B. Bogue.

Maryland Historical Magazine — March, 1957: "The Old Wye Mills, 1690-1956," by Edwin M. Barry.

Michigan History — March, 1957: "Agricultural Trends in the Upper Peninsula," by Henry S. Hiemonen.

Nebraska History — March, 1957: "Young Radicals in the Nineties," by Mary Louise Jeffery; "Some Effects of the Introduction of the Automobile on Highways and Land Values in Nebraska," by Clinton Warne.

Oregon Historical Quarterly — Spring, 1957: "The Oregon Donation Act and the National Land Policy," by James M. Bergquist.

Southwestern Historical Quarterly — April, 1957: "Texas Pioneer Surveyors and Indians," by Forrest Daniell.

Wisconsin Magazine of History — Summer 1957: "A Frontier Smithy in Wisconsin Territory," by Evan A. Hart.

THE AUTHORS

WEYMOUTH T. JORDAN is professor and head of the Department of History, Florida State University, and a member of the editorial advisory board of this journal.

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MILDRED THRONE is associate editor, *Iowa Journal of History*, and a member of the executive committee of the Agricultural History Society.

THE AGRICULTURAL HISTORY DEVELOPMENT FUND

Under the leadership of Dr. H. C. M. Case, the Agricultural History Development Fund was recently established with a Sponsoring Committee composed of the following:

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The purpose of the Development Fund is to broaden the membership of the Agricultural History Society and to obtain cash contributions which will be used to expand the size, improve the physical appearance, and at the same time maintain the high scholarly standards set by the journal in the past.

Contributions and new memberships as of September 1, 1957 totalled \$1115. New members brought into the Society through the efforts of the Agricultural History Development Committee are as follows:

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